

role of Government in the arts in order to best use our scarce resources and to formulate future plans.

Secondly, as interest in cultural and artistic activity begins to involve other levels of government, it is necessary to develop greater co-ordination and sharing of information among governments in the field. It is essential for the Federal Government to define its objectives and priorities clearly and explicitly.

Thirdly, such initiatives as the CBC's touchstone document, the National Library's *Review* and the Canada Council's green paper indicate that the cultural agencies are questioning their own roles, and are concerned about their effectiveness and their future development. It makes sense in this situation to work together in resolving some of the problems and questions.

Fourthly, the study may also be useful in alleviating some of the concerns of the Auditor General and Parliament for greater accountability to the public in the expenditure of government funds.

Finally, let me reiterate that the underlying purpose of the study is to substantiate and express the importance of cultural activity in the lives of all Canadians. There is, in my view, a lack of awareness by the public and by politicians that art and culture play a crucial role in our lives. We must establish the principles, objectives and priorities of federal support in this area, thereby enabling us to respond more effectively to Canadians' needs.

\* \* \* \*

### Task force to fight livestock disease

In the winter of 1952, an immigrant newly-arrived from Eastern Europe discarded the remains of a sausage he had brought from home in the livestock feed on a Saskatchewan farm. The result was Canada's most serious livestock epidemic — the sausage was tainted with foot-and-mouth virus.

Agriculture Canada had to slaughter over 1,300 head of cattle, as well as hundreds of pigs, sheep and goats. Canada suffered huge export losses — the total damage was about \$1 billion.

"Fortunately, it was winter and the disease did not spread as rapidly as it would have during warmer weather," says the recently appointed chief of the new Emergency Disease Eradication Organiza-

tion for Canada, Dr. D.J. Skinner. "The entire Canadian livestock industry might have been severely damaged."

Dr. Skinner, a leading authority on contagious diseases of foreign livestock, will head a national team of veterinarians, logistics experts, environmentalists and epidemiologists, whose job will be to contain and eliminate livestock disease outbreaks. "With the increased number of people travelling abroad, it's only a matter of time until we have another serious outbreak," Dr. Skinner says. "Fortunately, most travellers from abroad live in cities. If they get through Canada Customs with imported meat, the chances are good that any leftovers will wind up in a city waste disposal site, and not in livestock feed. Some day, however, an infected piece of meat may find its way to a farm. Some of the more serious foreign diseases spread like wildfire."

Dr. Skinner will organize the training of two emergency task forces, one in Western Canada and the other in Eastern Canada. Each will be a reserve force, similar to a militia. While Dr. Skinner will work full-time on the force, others will work part-time, or when an emergency occurs.

The Ottawa-based organization will also monitor exotic diseases abroad through liaison with international organizations. It will stay in close touch with the U.S. Department of Agriculture's disease centre in Washington.

The diseases of chief current concern are foot-and-mouth, hog cholera, swine vesicular disease, rinderpest and Newcastle disease. "In 1974 someone smuggled a pet bird into California, and it had Newcastle disease," Dr. Skinner notes. "The bird spread the virus to a poultry farm, and soon there was an epidemic. In all, 12 million poultry were destroyed from 1,340 flocks. That outbreak cost about \$56 million." The same type of outbreak, he declared, could occur in Canada's poultry-producing areas.

### Canadian solves monarch mystery

A long-standing mystery of nature was solved last year by a Canadian, Dr. Fred Urquhart, Professor of Zoology at the University of Toronto, who discovered the winter home and the breeding-ground of the monarch butterfly.

These large orange-and-black butterflies are a familiar sight during the sum-

mer months in Eastern Canada and the United States. More than 60 years ago they fascinated Fred Urquhart when he was growing up on Ontario's Niagara Peninsula. By the time he was nine, he had read many books about them, not one of which explained why, unlike the other butterflies he saw, they did not breed in Canada.

The thought that these fragile creatures could migrate to avoid the Canadian winter, travelling perhaps hundreds of miles, took a lasting hold on the imagination of the future zoologist. Dr. Urquhart began his career as a biologist on the staff of the Royal Ontario Museum. About the same time, he started to teach at the University of Toronto.

All the while he was trying to devise tags that could be attached to a butterfly. After years of trial and error, he found that the adhesive price-tags attached by supermarkets to glass jars would adhere to the insects' wings. They would not impede flight, and they resisted moisture.

Then came the appeal for volunteers to return the tags. After a while they started coming in, and Dr. Urquhart spent many summer holidays following up clues that led nowhere. In 1973 he got his first word from Mexico, and then several reports from observers who provided the key to the mystery.

In January 1977, accompanied by a photographer from the *National Geographic*, Dr. Urquhart stood on a mountain in the Sierra Madre, about 160 kilometres northwest of Mexico City. This high plateau, covering about 52 square kilometres, was the long-sought wintering area. Here is how Dr. Urquhart describes the sight: "In the quietness of semi-dormancy, the monarchs festooned the tree branches, they enveloped the trunks, they carpeted the ground in their tremulous legions. Other multitudes filled the air with their sun-shot wings, shimmering against the blue mountain sky and drifting across our vision in blizzard flakes of orange and black."

During the next few days, Dr. Urquhart tagged several hundred monarchs. He has already learnt that some of the tagged butterflies have been seen in the United States. He still has to find out whether any of the monarchs who fly south from Canada in the fall complete the return journey in the spring.

*The foregoing item, by Marcus Van Steen, has been edited and reprinted from Canadian Scene, March 3, 1978.*