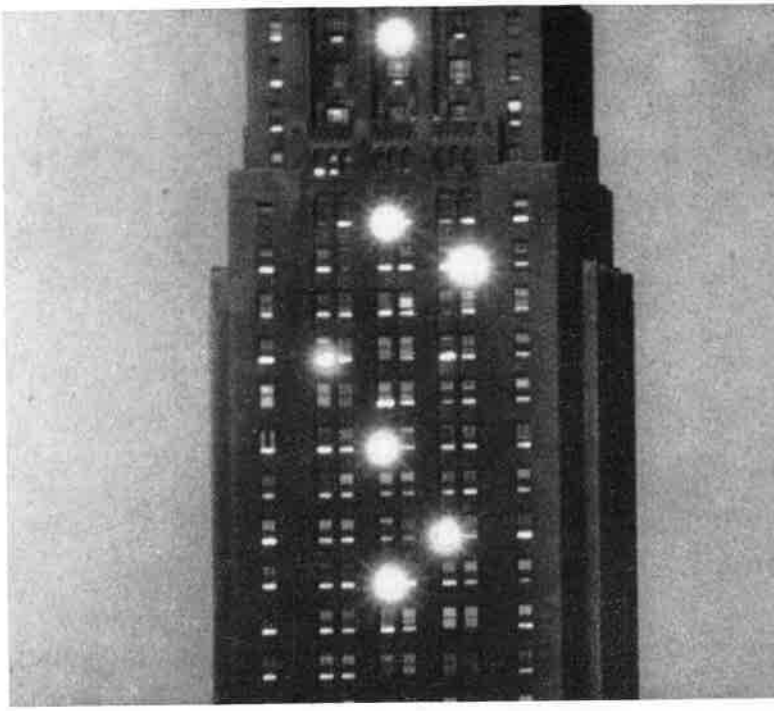
THE INNOCENT EYE



An aspect of the work of the National Film Board of Canada/PETER HARCOURT

WE COULD BEGIN WITH THE LIVING MACHINE (1961). Ostensibly a film about cybernetics—about the complexities of electronic technology and its place in the modern world—it is finally about something else as well, something not so easily defined. Shot in two parts of approximately half an hour each, the film describes some of the work being done at the Bell Telephone Laboratories in New Jersey and at the Massachusetts Institute of Technology. While conveying its information and displaying a fascination with the luminous intricacies of machinery—a fascination that dates back at least to Eisenstein, to the moving pistons in the final section of *Potemkin* or to the over-lit montage of the cream-separator sequence in *The General Line*—it also includes some playful and humane elements: an actual frog swallowing an actual fly, quite comically magnified to fill the entire screen, which follows a demonstration of an electronic replica of a frog's eye that buzzes hungrily at all fly-shaped objects; and in Part I, a game of checkers staged between an I.B.M. computer, programmed for half an hour before the game begins, and Mr. Arthur Gladstone, checker champion of New York.

Mr. Gladstone's warm New York face and voice add a touching element to the first part of this film. Mr. Gladstone, who has spent his life in mastering the complexities of the checker-board, now finds that he can win this particular game only by avoiding all the standard moves. For a while he is worried; but he finally comes to admire the machine for its tenacity in persevering with the game to the very end. "I usually shake hands with my opponent," he smiles, as he reaches out for the hand of the programmer. For Mr. Gladstone, as for us, the game has been a disquieting experience, its implications inimical (we might feel) to our self-respect. Part I ends with the question: "If man is to remain master of his new machine, what is man that a machine is not?" It is in the course of Part II's attempt to investigate this question that the film becomes something more than a film about electronic brains. In the pursuit of this problem, *The Living Machine* looks into a void.

As Part I is framed by the game of checkers, so Part II is framed by Allen Sheppard's flight into space. But the film is really built around an interview with Dr. Warren McCulloch, an eminent mathematician at the M.I.T. By reporting his words alone, it is difficult here to convey the effect that Dr. McCulloch has upon us when we can see him on the screen, as it is difficult to explain the central position he occupies in this film. There is a chilling sense of greatness about him: chilling because so little concerned with the sentimentalities, the elusive irrationalities, that for most of us seem so much a part of the human fabric of life; great because so learned in his own particular field and so unselfconscious in his speech and dress, so careless of what anyone else might think about what he says and is.

For Dr. McCulloch, all the mysteries of life have an explanation and that explanation is mathematical. Having been early seduced away from his destined theological career by the fascination of mathematics—"because as anyone acquainted with theology will know, the ideas in the mind of God are mathematics and logic"—Dr. McCulloch explains that there have been only two things in his life that he has wanted to know. As he puts it, "What is a number that a man may know it and a man that he may know a number?" He has had to content himself with an answer to only the first part of this double quest.

THE OPENING SHOTS OF "UNIVERSE".

Yet Dr. McCulloch believes that machines may inherit the earth, may eventually take over and carry on from man. He is detached and thoughtful as he considers this. We see him at his summer home in New England, first swimming naked with his grandchildren in an artificial lake that he has dammed up himself, then sitting on the grass as he talks to us. There are the sounds of a dog and children in the background, plus the buzz of bees and the occasional startling protest of a crow. In this setting, the interviewer/film-maker is troubled by the easy way Dr. McCulloch discusses the eventual extinction of man and the possible reign of the machine.

"But with man gone, wouldn't the machines be purposeless?" the troubled Canadian voice asks.

"No. I think they would be purpose*ful*," he replies, emphasising the final syllable, "as man's life is purpose*ful*."

"Would there be nothing gone, nothing missing?"

Here, a pause as he looks around him, as if thinking about this aspect of the problem for the first time, trying to be exact in reply:

"You mean in the sense that the dinosaurs are missing?"

"No, something important, something . . ."

"Aren't they important, I mean weren't the dinosaurs . . . ?"

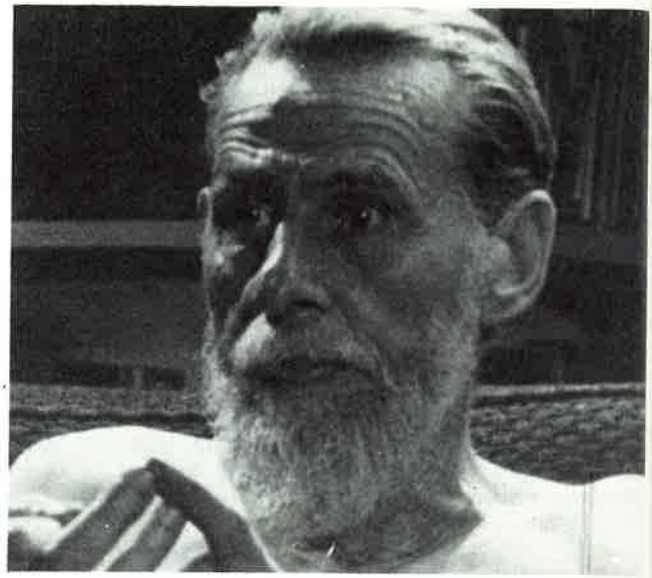
Here, a cut-away to the children playing close by, and again we might be conscious of the hum of summer life around. The interviewer is even more troubled and tries to explain that he is talking about human emotions, about the way that Dr. McCulloch must feel about his grandchildren. The doctor remains unperturbed: he sees no reason why machines could not be designed that would be able to feel.

"I'm certain that if I do it, there's a mechanism that can do it," he explains. The camera continues to run, as if by its very presence it might probe more successfully than the now exhausted questions have been able to. Again there is a cut-away to the children and still the summer sounds. Dr. McCulloch smiles at them amusedly, and we might hear him murmur the caution, "Don't shake the table!" as the camera continues to run.

This is a moment of great embarrassment in the cinema, as if the film-makers were no longer in control and no longer knew what to do. As by his eyes Dr. McCulloch seems so much more sure of himself than we could possibly be, instinctively we want to look away. And it is largely because of this moment that many people who have seen the film consider it unsatisfactory, even people who work at the National Film Board. Yet for me, it is a moment of greatness in the cinema, of an honesty of presentation where man has been faced with an ultimate—the relativity of the values of his own existence—and, confronted by the explanations, can find nothing more to say. The camera still runs on as Dr. McCulloch stops smiling at his children and looks up at the camera and then into the eyes of the interviewer, and again smiles as if to say, "What do you want me to do, what more can I say? I am not embarrassed faced by your machine." He looks out at the Canadians and at us.

Quick cut to Margaret Mead explaining Dr. McCulloch's views as a new kind of anthropomorphism, the invention of a new series of gods. She is most exuberant and pleasing to watch. After Dr. McCulloch, she seems more normal, closer to us in her ways of thought, and is therefore more manageable, more comforting to listen to. Yet, more intelligent? More far-seeing? The film lets us decide this for ourselves, but the troubled note remains.

In fact, like so many of the films that I shall be concerned with here—like *City of Gold* (1957), *Universe* (1960) and *Lonely Boy* (1961)—*The Living Machine* is studded with questions, questions genuinely the result of a desire to understand. Part I begins with "What kind of machine is it that in half an hour can learn to play checkers with a champion?" While Part II carries on into more metaphysical regions, asking questions about the basic tenets of existence to which there are no cosy replies. With Allen Sheppard in his Mercury capsule we hear: "What is this creature who chooses to attempt a journey through an alien world where only the machinery around him, if it works, will keep him alive?" And when we return to Sheppard at the end of Part II, after we have been taken on a tour through the history of man's billion years—shoes squeaking, footsteps echoing, down the corridor of a natural history museum at night, a torchlight picking out the replicas of the preserves of the evolution of man—again we hear the commentary, reverential, questioning: "Behind man a billion years. A billion years to grow flesh and blood and brain and to begin to understand and shape our world . . . What incredible machines will man have made in another billion years? What sights will our adventurers then be seeing with their own eyes? What is this creature of flesh and blood, feeling hope and fear?"



"THE LIVING MACHINE": DR. WARREN McCULLOCH.

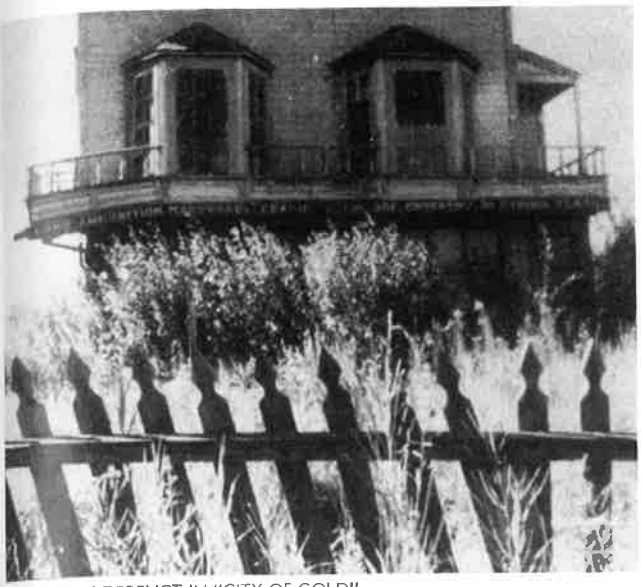
Sheppard in the capsule, photographed in a ghostly light while in outer space by the camera in the capsule with him; a medley of buzzes on the sound-track along with his own reporting voice, buzzes perhaps recalling the bees that we have just heard, but mostly the electronic buzz of the frog's artificial eye that we heard towards the opening of the film. Thus, there is an unobtrusive aural symmetry as the film ends with these questions, diffused throughout with a sense of awe: "What is this creature of flesh and blood, feeling hope and fear?"

* * *

The Living Machine is the work of one section of one unit operating within the quite vast structure of the National Film Board. It is the work of the old Unit B. Originally, when the unit system was devised some fifteen years ago, there were four separate units, each with a shooting schedule of about 20 films a year; while by last year, when it was decided to replace the unit system with a new kind of structure within the Film Board, there were seven units which produced on an average a total of fifty short films a year.

In principle, each unit was in charge of a certain area of interest: one unit concentrating on French productions; one on theatrical shorts, news-magazines, and the like; another dealing largely with sponsored work for the various government departments. Even at the outset, Unit B seemed to have the widest range of activities, including as it did the animation department, while producing some films on art, some classroom films, and some science films, as well as the 'candid' documentaries which I shall be concerned with here.

At its best, the unit method of film-making was good because it was organic, allowing a transference of understanding from



KLONDIKE DERELICT IN "CITY OF GOLD",

one member of the unit to another, helping to make for a group maturity. "Craftsmen who care about the whole want to be involved in the whole," the Executive Producer of Unit B, Tom Daly, explained to me when I visited Montreal last summer. But, of course, there were also disadvantages: some people felt confined within a particular unit, expected to produce the same kind of film over and over again. So a new system has been evolved, a system that also more sharply divides the English sections from the French, for the results of which we shall have to wait and see. But it was very much the growth of television about eight years ago that helped Unit B to develop its own particular style, a style seen at its most probing in *The Living Machine* and at its most brilliant in *Lonely Boy*, the film on Paul Anka.

"Television was the excuse and also the opportunity," as Tom Daly described it. The television screen was enormously hungry, while at the same time standards were not too high. This made possible a number of fresh principles. First of all, television encouraged them to shoot on 16 mm., which for the same amount of money allowed them to think in terms of maximum footage and editing time, with a minimum of scripting and artificial lighting. On most of the television films there was virtually no script at all. The script and commentary were devised in the process of editing; while Wolf Koenig, who along with Roman Kroitor directed the film, estimated that the shooting ratio for *Lonely Boy* was about 1/20—that is, one foot of film used for every twenty shot. Also, the general lightness and flexibility of the 16 mm. equipment made for a greater flexibility and versatility of effects, something best seen in the Freedomland sequence at the end of the Anka film. With Wolf Koenig on camera and Marcel Carrière on sound, they managed to capture all of what we see from only four performances, two performances on two consecutive nights. Until this was explained to me, I had assumed a multiple camera technique had been at work throughout the film, but this was not so. In fact, between them, Wolf Koenig and Roman Kroitor shot all the externals necessary for both *Lonely Boy* and *The Living Machine* within a period of from five to six weeks, sharing the directorial credit for the Anka film, Kroitor taking it for *The Living Machine*. In fact all the Unit B films were really co-operative efforts, as Tom Daly put it, "the credits being apportioned at the end of the filming according to where they felt the centre of gravity lay."

As its executive producer, Tom Daly is the hub around which all the 35 members of Unit B turned. Add to his name those of Koenig and Kroitor and then of Colin Low and you have within the Unit the four men who have contributed most creatively and consistently to its individual style. Of course, there are many others who have helped to make up the team. In the films that I am concerned with, I should perhaps mention Guy Coté, who worked as editor on both *The Living Machine* and *Lonely Boy*; Eldon Rathburn, who has contributed such effective musical scores to so many N.F.B. films, but especially to *Universe* and Colin Low's *City of Gold*; and most importantly (it seems to me) the voice of Stanley Jackson, himself a director of some of the Unit's more specifically educational films—the quite admirable *Shyness* (1953), for example—who speaks the commentary on the majority of the films with just the right degree of respect and awe, as in *The Living Machine*, or the right tinge of irony in *Lonely Boy* or *I Was a 90-Pound Weakling*.

Yet these films are so thoroughly the product of a group that the names do not matter. Although as one grows closer to the films and comes to know them better, one can detect the personal contributions of the individual men, while we commonly talk of a Franju film, a Chris Marker film, or even if we know them of a Robert Vas film, we tend to refer to a N.F.B. film as if less personally conceived. One might think as well of the Canadian Stratford players, universally praised for the vitality of their team-work while boasting no stars.

* * *

There is something very Canadian in all this, something which my own Canadianness prompts me to attempt to define. There is in all these films a quality of suspended judgment, of something left open at the end, of something undecided. And if one thinks of the films of Franju, Marker, or Robert Vas, of their insistently personal quality, there is also something academic about the way the Canadian films have been conceived. There is something rather detached from the immediate pressures of existence, something rather apart.

The sharpest foil would be Humphrey Jennings and his films about the war. Jennings was a man who to a large extent had the personal quality of his films thrust upon him by the conditions of his time. He also experienced, both in his films and in his life, an immediacy of contact with his fellow men and a certainty of identity in relation to the world in which he lived. Like the poems of Wilfred Owen, Edward Thomas, and others of the First World War, the films of Humphrey Jennings sprang immediately out of his experience of the Blitz and spoke and still speak directly to all Londoners who endured it. Similarly, if on a smaller scale, in all the images of threat, demolition, and insecurity that pervade Robert Vas's films, there is the felt presence of the Hungarian uprising that has so disrupted his life.

In contrast, the Canadian films have none of this personal urgency about them, none of the autobiographical emotional charge that we tend (I think confusedly) to equate with seriousness or sincerity in art. Yet the films of Koenig and Kroitor are the result of their Canadian experience and they are true to that. Conditions in North America, and particularly Canada, can allow a man to spend an easy, comfortable life without great physical hardship; and if he is a serious person, offer him the facilities to contemplate the Great Problems of our Age. "What is a number that a man may know it and a man that he may know a number?" is not a question that would have been in the minds of many Londoners during the Blitz or in the minds of many Hungarians in 1956. It is essentially a question for a leisured, unharassed culture, as are the questions that the Canadians themselves ask in both *The Living Machine* and *Universe*. It is the presence of these questions, veering constantly towards some ultimate, that give the films their abstract and slightly rhetorical air, as they give them that quality which might strike Europeans as a boyish sense of wonder.

"If you were to hover in space beyond the moon, speeding up in imagination its movement, you would see a majestic procession in the sky . . ." Or later on in *Universe*, as the camera appears to be whizzing out into the night at an

FICTION AND ACTUALITY: "NOBODY WAVED GOODBYE".

enormous pace, we hear the commentator's reverential voice again saying: "If we could move with the freedom of a god so that a million years pass in a second, and if we went far enough—past the nearest suns—beyond the star clouds and nebulae, in time they would end and, as if moving out from behind a curtain, we would come to an endless sea of night." At that point in the film, we seem to shoot out into this black sea, with dim puffs of light shimmering in the distance. "In that sea are . . . the galaxies." There is about this entire film a sense of awe at the immensity of its chosen subject which distinguishes it sharply, I should think, from Professor Hoyle's astronomical writings, where man is made to seem in charge of it all, conducting his investigations with confidence.

Chiefly the work of Roman Kroitor and Colin Low, *Universe* takes pains to establish a human frame for the vastness of its subject, starting us off with the setting sun on the horizon, followed by its reflection multiplied in a number of office windows, then by its almost horizontal rays refracted across busy city streets. We then move into the David Dunlap Observatory near Toronto to see the astronomer at work—watching, photographing through the night; as after our filmed celestial journey through a heaven composed of telescopic photographs and animation techniques, we return to the watchful man alone leaving his post at the Observatory, this time in the light of the almost horizontal rays of the rising sun, while a church bell is heard in the distance, plus the bark of a dog and the twitter of birds—a gradual modulation back to our terrestrial life as we habitually experience it.

* * *

Wolf Koenig and Roman Kroitor seem to work in perfect unison as a team: "Roman more the shaper, the thinker; Wolf the director, the shooter," as Tom Daly explained it. To speculate from my own knowledge of their films and from my brief meeting with them one summer afternoon, it seems to me that this sense of wonder, this questioning probing about the nature of our existence, might very well come from Roman Kroitor, as well as from Colin Low; while the sharp, often ruthless observation of the idiocies of modern life, the witty juxtaposition of this absurdity to that, might more frequently be the contribution of Wolf Koenig. So, while they both worked much as equals on all three films, Wolf takes the directorial credit for *I Was a 90-Pound Weakling*, Roman the credit for *The Living Machine*, while they share the directorial credit for the acid yet humane *Lonely Boy*. It is perhaps indicative that Wolf began as an animator, making his own contribution to the facetious little film designed by Unit B as long ago as 1953, the *Romance of Transportation in Canada*; while during the same year, Roman was directing what I think was his first film for the N.F.B.: a sensitive if slightly over-indulgent observation of an aged Polish immigrant in Winnipeg, *Paul Tomkowicz, Street Railway Switchman* —Wolf early on being concerned to startle and amuse, Roman patiently observing, anxious to understand.

Speculating like this about their individual contributions, I find that Colin Low's work seems a little apart, quieter perhaps, certainly more nostalgic. He has been in charge of three films which are all re-creations of recent Canadian history and are undisguisedly autobiographical in feeling: *Corral* (1954), *City of Gold* (1957), *Days of Whisky Gap* (1961). Although he too began as an animator, in *Corral*, while externally dealing with the breaking in of a horse on a ranch in Southwest Alberta, Colin Low is really concerned with something else, something more inward. Beautifully shot by the ubiquitous Wolf Koenig and with an effective musical score for two guitars by Eldon Rathburn, the film seems to be a re-creation less of an actual event than of an atmosphere that has vanished. As to a degree there is in all of his films, there is here the feeling of a quietly private world, of something reflective, plus the sense of something lost. There is the atmosphere of events more deeply felt than thoroughly understood—something again that I find characteristically Canadian.

City of Gold is personal in a rather different way: here Pierre Berton narrates his boyhood memories of his early life in Dawson City, the centre of the Klondike Gold Rush in 1897. The substance of the film is a montage of still photographs depicting the excitements and hazards of that time. We see photographs of the girls of Paradise Alley in their Paris-imported costumes, girls who struggled northwards to be the comforts of the gold-ambitious men; as we see an incredible photograph of a line of human beings, strung up along a 45° slope of sheer ice in the Chilkoot Pass in an "endless human chain." But as with *Universe*, we begin and end with actuality photography, with shots which link us more closely to our own living world; and miraculously, between stills and location cinematography, there is the continuity of the low-angled northern light. Derelict houses, once resplendent, are shot through stalks of waving grass; and as with the early morning sounds that punctuate the close of *Universe*, this slight movement serves to emphasise the stillness of the rest.

Throughout this film, too, there is a sense of wonder, this time at the limitless endeavour of man. Concerning some of the people who ventured north, Pierre Berton explains: ". . . after the long months on the passes and lakes and rivers, they found themselves seized by a curious mixture of feelings, not the least of which was a strange elation . . . many of them never bothered to look for gold at all. It was as if somehow they had already found what they were seeking." This time co-directed by Wolf Koenig and Colin Low, with the story line supervised by Roman Kroitor, another most evocative score by Eldon Rathburn, and produced and edited by their chief, Tom Daly, *City of Gold*, while superficially about a gold rush, becomes an emblem of the incomprehensible motivation of man.

* * *

The National Film Board is a large organisation that, since its establishment by John Grierson in 1939, has produced a great many films of real quality. In this article I have been concerned with only a handful of the products of one section of one of the units and have made no attempt to be comprehensive in my selection. The films talked about are simply

those that I know best and most admire. The work of Norman McLaren has gone unmentioned, as has Arthur Lipsett's *Very Nice, Very Nice*. And even within Unit B, I have said nothing about *I Was a 90-Pound Weakling*, an investigation into the obesity scare and Health Club craze of the present time. Tom Daly explained how the boys were unhappy about this film until they discovered Swami Vishnu-Devananda, who teaches yoga in Montreal. In his unselfconscious dedication to his art and creed and by the charm with which he interviews the interviewers, Swami Vishnu-Devananda gives to even this generally light-hearted and satirical film its own note of seriousness and a reference outwards to other matters.

Nor have I more than mentioned the particular feat of *Lonely Boy*, the best known example of Unit B's dexterity, though also the most easily misunderstood. In its minute observation of characteristic behaviour, *Lonely Boy* is indeed the candid documentary that Wolf and Roman wanted it to be. But at the same time, in its editorial juxtapositions, its skilful counterpointing of pictures with sound, in the odd little cut-aways that so fill this film, it acquires within its general documentary intention what I feel to be an almost surrealist intensity. As we hear Paul Anka explaining the necessity of his compositions, we see him silently gesturing as if in song at the Copacabana in New York, an editorial device that momentarily makes his explanations and his gestures seem unrelated and so ridiculous. As we hear him trying out a new song "In the wee small hours of the morning . . .", the film-makers mix over the voice of his manager, Irvin Feld, explaining how he has many times discussed Paul's obligations to his talent "till the wee hours of the morning." Not only is there the coincidence of phraseology, but also the implication that Feld's management dominates Paul's musical gifts. "And this is the way I groomed him," as he earlier says. Finally, again in the Copacabana, as with self-conscious suavity Paul lights a cigarette for the owner of the club, we catch a glimpse of a chorus girl slipping furtively away, giving an odd quality of ominousness to the scene, as in the earlier dressing-room sequence does the flash-bulb camera that repeatedly refuses to work. Although all little touches, perhaps scarcely noticeable, these effects give the film a kind of cumulative anxiety, as if things were not all that glorious within this monied, pop-cultured work that we have been observing; as if Anka were trapped within the image of himself created by his manager for his fans, as he seems trapped in the car at the end of the film—fatigued, a bit unsteady, shut away from the world outside.

* * *

Something also scarcely noticeable in this article is the fact that the National Film Board is also L'Office National du Film. But it would require another article to do justice to the work of the French-speaking units, as, indeed, another writer —someone closer to their specifically French-Canadian concerns. For with the exception of *La Lutte* (1961)—an immensely, wittily perceptive film about wrestling co-directed by four of the best-known names in the French-Canadian section: Michel Brault, Marcel Carrière, Claude Fournier and Claude Jutra—with the exception of this film among the ones that I know, the French-speaking films seem less concerned with subjects that open out upon some world-wide interest like astronomy or pop art than they are to depict minutely some little known aspect of French-Canadian life. "This is how we live," films like *Les Raquetteurs* or *Les Bûcherons de la Manouane* seem to be saying: "this is what all the trouble is about, for this is what we want to be allowed to develop, this is what we wish to preserve!" Films like *A Saint Henri, le 5 septembre* (1961) or the highly-praised *Pour la suite du monde* (1962), while certainly moving social documents, most lovingly observed, lack any reference outwards to the larger world beyond *Québec*; so that, even while admiring them, it is difficult not to be bored.

Finally, it would be wrong to end this piece without so much as mentioning the Board's recent ventures into feature-film production. There have been, of course, some educational, historical re-creations like the John Cabot film; as there has recently been a feature film actually made independently but which utilised a number of N.F.B. men: Claude Jutra's *A Tout Prendre*. But *Drylanders* exists as the first N.F.B. fictional feature film, and it has been followed by *Nobody Waved Goodbye*, and most recently by Gilles Groulx's *Le Chat dans le Sac*.

Although *Le Chat dans le Sac* managed to carry off the prize in Montreal as the best Canadian feature of the year, most interesting for us here is *Nobody Waved Goodbye*. Produced by Tom Daly and Roman Kroitor and directed by Donald Owen, whose short on Toronto's Bruce Kidd, *Runner*, was shown at the seventh London Film Festival, *Nobody Waved Goodbye* seems like a logical extension of the work of the old Unit B. It is, to my mind, a remarkable accomplishment and may well suggest the way that N.F.B. productions will grow in the future. Very much in the zooming, tracking style of Unit B's television documentaries, shot on 16 mm., the film registers the nuances of a teenage rebellion against the complacent affluence that the young couple see around them in Toronto. Although a fiction film with invented plot and characters, the actuality techniques are so persuasively handled that everything looks as if it had been caught *sur le vif*. In spite of some narrative weaknesses that I felt in the final third of the film, the dialogue and gestures are so realistically, so spontaneously evoked and are so convincingly—for me, so familiarly—Canadian, that it seems that *Nobody Waved Goodbye* succeeds in doing what Sidney Furie tried to do all alone some eight years ago with *A Dangerous Age*, and even, in its improvisational techniques, what John Cassavetes only partially brought off in *Shadows*.

No mean achievement, and an extraordinary flowering of a government-sponsored film unit, originally set up (as the original Film Act stated) "to interpret Canada to the Canadians and to the rest of the world and to make films in the national interest." The National Film Board has moved a long way from any utilitarian interpretation of that clause.

NOTE: *Most of the films mentioned in this article are available in this country. Readers interested in hiring them should apply to the National Film Board of Canada, 1 Grosvenor Square, London, W.1 for a list of distributors.*

A SHOT FROM THE CLOSING SEQUENCE OF "UNIVERSE".