IMAX in Canadian Cinema: Geographic Transformation and Discourses of Nationhood

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... the last post-industrial resource, acceleration exceeds accumulation...

Paul Virilio (1987, 180)

The guiding myth, then, inspiring the invention of cinema, is ... an integral realism, a recreation of the world in its own image, and image unburdened by the freedom of interpretation of the artist or the irreversibility of time ... Every new development added to the cinema must, paradoxically, take it nearer and nearer to its origins. In short, cinema has not yet been invented!

Andre Bazin (1967, 21)

It's the ultimate in screen realism, and yet in many ways it's much better than being there.

Julian Temple, director of *Rolling Stones At the Max* (1991) (Gentry 1992, 40).

**Being There**

In the lobby of the IMAX theatre in the Vieux Port of Montreal, a popular large screen cinema venue, there is a permanent display explaining the IMAX cameras and projectors, the film stock, the screen, and the other innovations that together create the "IMAX film experience." The display includes a bank of television monitors that simultaneously present a short promotional video. The immensity of IMAX films does not transpose well to the puny medium of videotape; for this reason, the promotional video opts to present a multitude of clips, many of which most conspicuously concentrate on the faces of audience members. Here, the IMAX audience is shown to be dwarfed by the screen, gazing upon the giant moving images with child-like expressions of innocence. These are faces of wonder, faces of surprise. And these images suggest that IMAX is always novel and always a first time viewing event.

This "behind the scene" and "before the screen" knowledge is an integral part of the show; an awareness of the technological determinants and their experiential effects are bound up with the pleasures of IMAX. In the video presentation, the wonderstruck spectator acts as testimony to the successful orchestration of IMAX technologies. A phenomenological supposition, then, accompanies IMAX's status as industry, art and entertainment. As this display illustrates, the distinctiveness of IMAX rests on the

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necessity of presence, of being there. In case you miss the display, a theatre employee addresses the audience before the screening, introducing not the film but the IMAX cinema system.

IMAX Corporation is an internationally successful company cofounded by Roman Kroitor, Graeme Ferguson, Robert Kerr, and engineer William Shaw. With specially designed theatres in over twenty countries, its head office is in Toronto, Ontario. Like Kroitor and Ferguson, some of IMAX’s occasional participants worked at National Film Board of Canada (NFB), including filmmakers Colin Low, Donald Brittain, Tony Ianzelo, John N. Smith, John Spotton and Ernest McNabb. IMAX’s product is a special film experience. In 1994, the U.S. -based WGIM Acquisition Corporation gained control of IMAX, merging it with Trumbull Company Incorporated (TCI). This brought Hollywood special-effects wizard Douglas Trumbull from TCI chair to Vice Chair of IMAX. Regardless of this shift in ownership, IMAX continues to experiment with new and more spectacular ways in which to engulf the spectator and to draw the audience into the screen. Or as their promotional information says, IMAX offers “films so real you want to touch them.” In this respect, IMAX’s illusion of materiality is actually more important than the films themselves; the filmic representation is less central than the effort to create the sensation that the screen has disappeared, that it is truly a window, and that the spectator sits right in the image. And it is an experience that is salient enough to warrant its inflated ticket prices.

This quality is perhaps best explained in the phrase used repeatedly in the CBC TV documentary report on IMAX, shown on The Nature of Things – “putting you into the picture” – a phrase that suggests multiple meanings. Apart from the immediate sense of placing the viewer into unusual and unlikely situations in a credible fashion, “putting you into the picture” carries connotations of participation. As director Colin Low, proudly proclaims, “it’s participatory art.” The fact that the audience willingly pays and enters the theatre hardly seems to qualify IMAX as a participatory art form. However, the power of the sensation of involvement can not be easily dismissed, and indeed is a keystone in the IMAX industry.

My intention here is to place IMAX – a film technology, a cinema practice, and a corporate entity – within the context of Canadian cinema history. It has been largely neglected as a filmic form, instead being demoted to the connotatively derogatory “special venue” cinema. Yet, it is probably the most successful Canadian cinema practice. Further, it is completely consistent with the history of cinema in this country. For, IMAX, with its bloated theatres and monumental screens, equally amplifies discourses about nation and identity, in particular concerning the relationship between geography and technology in the imaginings of the country.

My interest here is not in the what of national culture. So many still approach the question of national culture in an anthropological mode, that is, as an exercise in cataloguing, whether of artifacts, themes or stylistic elements. Instead, I am interested in the discourses of nation. After Partha Chatterjee (1986), an interest in nation concerns the relationship between the specificities of thought and culture. What “frameworks of thought” operate in, and migrate to, particular cultural contexts, and with what consequences for the relations of power (Chatterjee 1986, 27)? What is the shape of the utterance “nation?” And what answers are given in the context of the set of anxieties and expectations of what national culture is supposed to be?
IMAX, as a mode of representation, as a national technological expression, and as a corporatist ideal, has been one such answer for over the last twenty years. Interestingly, what could rightly be called the first public moment of the IMAX approach to cinematic innovation did not involve IMAX directly. It was seen in the $4.5 million centennial film project, Labyrinth. Produced by the NFB for Expo '67, the Montreal World Exposition that coincided with Canadian Centennial celebrations, the Labyrinth project involved documentary filmmakers Kroitor, Low, Tom Daly, and Hugh O'Connor. All had been part of the famed Unit B group of the NFB. The film project was an experiment in the possibilities of what Gene Youngblood (1970) has called “expanded cinema” by altering not only the films themselves, but also the conditions under which the films are seen. It consisted of three separate viewing spaces. The first contained a four level U-shaped theatre, with both horizontal and vertical screens, five theatre sound systems and 288 additional speakers. The second, an M-shaped structure of mirrors and flashing lights, led a disoriented audience to the third room. There, five screens, each four by three metres in size and arranged in a cross, presented identical, juxtaposing or singularly continuous images.

Reportedly, well over a million people lined up to see Labyrinth. Concerning the success of the exhibit, Kroitor has said that “[t]here is a basic human need for a communal experience of vision” (in Youngblood 1970, 352). On the heels of this success, the organizers of Expo '70 in Osaka, Japan invited Low, Kroitor and Donald Brittain, yet another NFB veteran director, to continue their experiments. Focusing upon the potentials of the large screen format, they set to constructing a system of camera and projection to accommodate their ambitions, the product of which was the first IMAX film Tiger Child (Brittain, 1970). At this point, the corporation was formed, IMAX Systems Corporation, to become simply IMAX Corporation in 1991.

Since its origins in the Labyrinth exhibit at Expo '67, this offspring of both the experimental and documentary traditions in Canadian cinema has been placed consistently at museums, science centres, amusement parks, and as the centre piece of Canadian pavilions at international expositions. This includes, the New Orleans World Exposition (1984) and the Vancouver World Exposition (1986). At the Seville Universal Exposition (1992), there were four IMAX theatres, acting as the principle attraction for the French and Fujitsu Pavilions as well as the Canadian one. Of the over 120 theatres open world wide, with 35 more to open in the next few years, few if any are not similarly situated, though special shopping venues and theme parks are currently the largest growth area for IMAX theatre construction.

This particularity of IMAX has prompted Paul Virilio to asked, “[h]aving once escaped the fairground, will cinema now go back there to stay?” (1990, 173). In the context of cinema history in general, this is a logical question. However, in Canada, national cinema has never really left the fairground. The historical barriers to commercial exhibition have forced Canadian film to retreat to more specialized locations such as retrospectives and festivals. These barriers include a feature film distribution system that has historically acted as an arm of the U.S. domestic system, public funding that traditionally supported parallel venues over commerical ones, and an industry of film production that operates as a local branch plant servicing Hollywood financing and international markets. Consequently, a popular feature film culture has been foregone in favour of a more select view of Canadian filmmaking and exhibition.
In fact, there is the impression that Canadian national culture in general operates with a sort of *expo-mentality*, appearing primarily in extra-ordinary locations and events, including museums and world expositions. These special venues and occasional sites are wonderful ideological lightning-rods; by their very nature, they require the realization of a particular national vision in the present. This is especially true of Canada where such events provide formative moments of self-definition assumed to be lacking elsewhere. IMAX in some way confirms this national self-image, and, perhaps more importantly, is recognized as an appropriate international face. "Expo-mentality" fundamentally concerns the spectacle of nationhood, and for a country so preoccupied with its own presence/absence, IMAX is a condensation point for spectacular Canadian images. It also seems to suggest that the biggest little country in the world needs the biggest little cinema.

And big it is. IMAX is only about its own size. It is incapable of subtlety; it can only be big and loud. The screen can accommodate an image approximately ten times that of a 35-mm film. This is achieved by taking the standard 70 mm stock, turning it on its side, and using fifteen perforations to designate each frame. The physical dimensions of the film necessitated not only the construction of specific cameras, but also new ways to project the image. The film itself is so heavy that it would not move smoothly through a projector in the vertical position. Instead, the film is projected horizontally, on a flat-bed, with the IMAX patented "rolling loop" moving each frame forward. The atypical cinema experience created by this technological system, the IMAX experience, imprints the corporate logo figuratively upon every frame. You are always watching an IMAX, registered trademark, film.

But IMAX is not a single, stable cinema or aesthetic; it is an industry that has developed around what Andre Bazin (1971) referred to as the myth of "total cinema." To this end, IMAX Corporation has developed not only IMAX, but also OMNIMAX, whose screen is curved to cover a greater field of vision, and IMAX Simulators (the most elaborate of which is the Douglas Trumbull directed "Back to the Future" ride at Universal Studios Florida). Experiments continue, with a 3D film *Transitions* having been produced for the Vancouver Expo '86. There is also IMAX Solido, an improved fidelity 3D system, whose test film shown was in Japan in 1990. IMAX and the NFB have co-produced *Momentum* for Expo '92 in Seville at 48 frames per second, double the conventional speed. This, IMAX Corporation says, allows fast moving objects to be filmed in extreme close-up without distortion. In short, IMAX is not simply big screens. It is a particular vision of what is meant by film innovation, involving continued technological experimentation with film and with infrastructure in order to extend the viewing experience beyond that of conventional, commercial cinema.

IMAX proposes the most ambitious solution to the "problem" of Canadian cinema: the re-invention of the cinema. At every stage, a different process had to be introduced, from financing and corporate structure, to the relationship between the production and distribution of films. The process involves a new camera, a new projection method, and an entire chain of specially equipped cinemas, architecturally as well as technologically, to show the films. As different from both the structure of the feature film industry and from the public filmmaking of the NFB, IMAX placed itself in a market with few competitors.\(^2\) It then had the freedom to construct a network of cinema financing,

\(^2\) Though none are close to IMAX in establishing their industrial permanence, other expanded format cinema firms include FuturVision, Showscan and Iwerks. The latter is notably active in Hollywood, having signed a deal with Michael Ovitz to produce a feature film with Iwerks (Symonds 1991).
production and exhibition with tight vertical integration. With its intensive interest in expanding its impact, it is perhaps better to understand IMAX as the perpetual re-invention of the cinema.

If IMAX Corporation re-invented the cinema, it also reinvented many of the pitfalls and specificities of Canadian cinema. By necessity, its innovators found themselves in the same cultural environment, firmly rooted in the same national cinema history, and in many ways could not but encounter similar conundrums, in spite (or perhaps because) of their internationalist ambitions. These conundrums include the competing tensions between educational and entertainment film, international and national culture, and public and private culture. Additionally, IMAX is clearly a continuation of what Janine Marchessault (1991) describes as the particularly masculinist nature of the Canadian experimental film tradition. Despite the involvement of many women, most notably director Toni Meyers, IMAX’s fascination with technology, with spectacle and with a cinematic mastery of the natural world places it within an enduring history of masculine interests.

An “expo-mentality” persists in the collective imaginings of Canadians. Even as it is left behind, Expo ’67 operates more effectively as the imagined moment in which the coherent and singular space of nation surfaced and from which a “loss” can be measured. Herschel Hardin has put it, “[o]nce the Expo Bacchanalia were over, though, the ideological chastity belt was locked tightly again” (1974, 289). Hardin argues for the Canadian public broadcasting and filmmaking ethic as our often repressed national “psychic underground” (1974, 297), pointing to the success of Expo ’67 as its most international manifestation. Yet, ironically, this is exactly the pivotal point at which the recommendations of the Royal Commission on National Development in Arts, Letters and Sciences in 1951 were beginning to be reeled in. Public culture was about to become under siege. And from the grand extravaganza of Expo ’67 came a rather perfect example of the shift away from the ideals of public culture in the form of IMAX Corporation.

As Alexander Wilson reminds us, Expo ’67 coincided with the popularization of a new global perspective, one that rested upon a single powerful image: a blue, cloud-swirled Earth from a satellite’s point of view (Wilson 1991, 167). Spaceship Earth now had a logo, and the notion of the fragile future of “Man and His World” would never have a better representative. Importantly, a residual claim of this image concerns the relationship between representational technologies and the politics of the environment. IMAX, emerging from the same moment with many of the same precepts of global humanism (already well honed by the time many of its innovators spent in Unit B of the NFB), fit snugly into this cinematic future. As an extension of Expo ’67’s promises and

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3 Perhaps the best example of the complex ties between private and public culture industries is the case of Frank Macerola. In February 1988, as commissioner of the NFB, Macerola organized a coventure between the film board and Lavalin Inc., which would include two IMAX films, an option on a third, and access by Lavalin to NFB facilities for the duration of a $50 million project, and with little, if any payback for the NFB. For instance, in this deal, the box-office receipts from the IMAX films shown in Montreal (at a Lavalin-owned IMAX theatre) would go to Lavalin. Twelve days after the signing of that deal, Macerola announced that he would leave the NFB for Lavalin. By May 1988, he was in charge of that project. In what appeared to be an obvious case of conflict on interest, Macerola managed to get an official waiver from the Privy Council which allowed him to take up this position. Normally, one must wait a full year before moving to a private corporation that one had dealings with in a public capacity (Brian D. Johnson, *Maclean's*, July 17, 1989, A42).
expectations, and as part of a continuing practice of Canadian documentary and experimental film, IMAX reveals a profound connection to Canadian cultural history. Its re-investment of certain “frames” of nationhood gives them a national and international life that would otherwise be inconceivable. Both continuous and discontinuous with its national context, IMAX is a complex manifestation of the discursive registers of contemporary corporate and cultural enterprise.

Techno-environmentalism and the Museum

One of the paths to understanding the social meanings of a cultural practice is to examine the qualities of its official and public recognition. How is it talked about? What are the terms of its popularity? Official recognition especially can been seen as an institutionally sanctioned bid to assert particular meanings over others, and therefore is additionally important to popular interpretations. In this vein, it is illuminating to look at the awards IMAX has won, which fall into two general categories: those which honour IMAX as cinematic innovation and those which applaud its role in environmental awareness. Certainly, IMAX sees itself as an educator with a prime interest in environmental issues, promoting understanding of the natural world and introducing ideas about ecological responsibility. Thus, in the realm of official recognition of IMAX, there is an articulation between cinema technology and the environment. For example, in 1991, Perrin Beatty, then Minister of Communication, presented IMAX Corporation with an Award of Excellence. He commented that “IMAX embodies the successful partnership between culture and technology that has kept Canada at the forefront of the information revolution” (Canadian Newswire 1991). Less than a week later, IMAX received an Environmental Achievement Award from Jean Charest, then Minister of the Environment, in a ceremony that took place in a suitably “green” location, the Montreal Botanical Gardens. International recognition mirrors this tendency. IMAX received a Scientific and Engineering Academy Award for technological innovation and excellence in 1986. The IMAX 3D film The Last Buffalo (Stephen Low, 1990) won best film in the Social, Environmental and Cultural category at the 1991 Japan Industrial-Cultural Film and Video Festival.

The articulation between technology and the environment is not only important to IMAX, but also to the apprehension of a national cultural agenda. Pragmatically, it is difficult for the federal government to ignore the anomalous case that is IMAX: a private Canadian cultural venture that has achieved significant international success. Here, so the story goes, young artists learn their craft and develop their ambitions under the protective wing of public culture (the NFB) in order to grow up and move into the “real world” of cultural entrepreneurship. It makes sense that in addition to the recognition of its technological excellence and environmentalism, IMAX Corporation received a Canada Export Award from the Department of External Affairs in 1988. Here, the federal government demonstrates their interest in a purely economic definition of culture, where the importance is the ability for entrepreneurs to gain profit in the international culture market, ideally returning that profit to the corporate centre in Toronto. This has also encouraged some co-ventures, most notably the 1991 announcement that the Ontario Government would contribute $5.5 million to research and development on IMAX
Solido. Thus, a Canadian industry can flex expansionist muscles, and symbolically be a model of corporate "Canadianness": local underdogs make good with homespun ingenuity. Or, as a Global TV news-anchor commented enthusiastically, in a review of *Momentum*, "And it's Canadian technology. What a great argument for the North American Free Trade Agreement!"

There are over 96 films in distribution. Many are either travelogues or exploration films. For instance, *The Dream is Alive* (Graeme Ferguson, 1985), produced by the Smithsonian Institute and Lockheed Corporation, offers a trip aboard the space shuttle. By 1993, it was the most successful IMAX film, with a cumulative audience of over 33 million. In the fall of 1992, IMAX released *Titanic*, directed by Stephen Low, which presents a series of dives to explore the famous wreck. There are other films that range from documentaries about particular technologies, historical events, as well as experimental films and unabashed stunt films. The bulk are about animals, natural phenomenon, or ecology, the most notable of which is *Blue Planet* (Ben Burtt, 1990).

In examining the corpus of IMAX films, a sort of postcard environmentalism is undeniably apparent. As one reviewer put it, "*Blue Planet* is a cinematic dream-come-true for Earth lovers, tree huggers, travel bugs, and would-be astronauts" (Brown 1991). Most of the films in some way concern the world of science and discovery or the natural world, whether geological or geographical, astral or animal. They provide views from space, images of oceans, or flights into the Grand Canyon. Despite the gigantic images, the world appears small in these films, or at least negotiable in the span of a relatively short movie. Awe-inspiring, exciting, and non-threatening, a vague environmentalist ethic emerges from the majesty of the image of the natural world. Here, environmentalism mostly refers to a glorification of landscape, which in turn acts as an immense backdrop to a sort of video game travelling experience. In this respect, IMAX cinema-going is often a form of nature tourism enabled by the most technologized of circumstances. Nature tourism promises, as Alexander Wilson has pointed out, both "intimacy and distance" (1991, 122). This contradictory relation promotes the safety of nature tourists as they move out of their habitat. But it also refers to the illusory pristine condition of the natural environment itself, to the absence of the influential and environmentally destructive hand of humankind, that is, to *not really being there*.

Nature tourism is always about being where human traces are not visible, even though this is an ontological impossibility. Access is permitted to an otherwise prohibited environment. Contaminating human forces are held at an ideological distance in order to construct the intimate communion with the natural world. And, paradoxically, this often

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5 From personal communication with an IMAX Corp. communications officer.
6 Examples include Colin Low's *Transitions* for Vancouver Expo 1986, which traces the history of transportation and communication, and *Speed* (Greg MacGillivray, 1984).
7 For example, the docu-drama *The First Emperor of China* (Tony Ianzelo and Liu Hao Xue, 1989) for the Canadian Museum of Civilization.
8 For instance, the abstract animation short *Primitve Too Taa* (Ed Ackerman and Colin Morton, 1988).
9 This includes *To Fly*! (Greg MacGillivray and Jim Freeman, 1976) and *Cirrus World* (Roman Kroitor, 1974).
10 For example, *Mountain Gorilla* (Adrian Warren, 1991) and *Beavers* (Stephen Low, 1988).
11 For example, *Ring of Fire* (George Casey, 1991), *Night of the Comet* (Ron Fricke, 1986) and *The Eruption of Mount St. Helens* (George Casey, 1980).
propels more elaborate technological initiatives, of which IMAX is a superior example. With IMAX, the environment lives on the indoor screen, and usually at the heart of an urban centre: "so real you want to touch it." One scene in To the Limit (Greg MacGillivray, 1989) extends this confusion between outside and inside, with endoscopic photography allowing the viewer to travel through the internal landscape of the human body. And the Canadian Pavilion at Seville, reflecting the exposition's theme of 'discovery,' was constructed as, in effect, a building turned inside-out, with pipes and steel girders exposed on the exterior. At the centre is the ultimate "outside": the IMAX theatre.

The dual interest in technology and the natural world reflects the corporation's ties to museum and exposition sites. One film, From a Little World (1991) captures this explicitly. It is a short drama in which, according to IMAX promotional information, "four strangers from very different walks of life meet in a museum. When the museum catches on fire, they join together to save an elderly man." For the most part, the films reveal a strong educational impulse. They provide the visual encounter with the unreachable; this may be a general argument for many media, but IMAX promises the added sensation of actually being there. Further, there is the educational value of witnessing the newest form of cinematic technique, hence tours of the projection room and the aforementioned lobby displays are part of IMAX cinema-going. In the lobby of the Canadian Museum of Civilization in Hull, the IMAX projection room is glass enclosed, thus doubling as an exhibit itself. The spectacle of the film technology has an appeal that fits neatly with the objectives of most modern museums of science, industry and culture. This is not only the goal of the enlightenment of its patrons, but also the assurance of a steady flow of interested people. Many museums have found that an IMAX theatre is a valuable draw, and a potential cash cow.

This, in turn, is the rationale behind the insistence that IMAX is a family oriented cinema. Graeme Ferguson describes the IMAX audience as "the family viewer, people of all ages, usually a more affluent, and better educated and more thoughtful audience" (Gefen 1989). In other words, the audience is the prototypical museum patron. Even as they now move more confidently into the entertainment market, straining their alliances with educational institutions, IMAX still wants to cater to the broadest market of affluent families, children and adults. For instance, Rolling Stones At the Max, directed by Julian Temple, with the participation of others including IMAX/NFB veteran Roman Kroitor, is a feature-length concert film that, according to an IMAX public relations officer, "adults who remember the Stones from their youth can take their kids to."

But this shift, still in its infancy, has not been without conflicts. Robert Lumley observes that one of the central dilemmas of the modern museum is to determine whether or not "museums are to have a cultural role as distinct from that of the theme park," and if so how (1988, 18). The construction of a specially designed theatre for the purpose of showing IMAX films is a significant capital investment, one that locks the institution into a single corporation and a few distributors. Now, as IMAX deviates from their

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12 From personal communication. It is worth noting that some lyric changes were made to accommodate the family audience. The personage described in "Start Me Up" is no longer able to "make a dead man cum."

13 IMAX rents its equipment to the few other production/distribution companies that exist. While IMAX distributes many of its films, others include the NFB, Destination Cinema, and occasionally individual museums. Probably the biggest "independent" is MacGillivray Freeman Films, but given the significant amount of marketing IMAX Corp. does for MacGillivray Freeman Films productions, one can assume there is some structural relationship.
initial philosophy, a tension is created between the structural determinants and corporate ambition. For instance, *Rolling Stones At the Max* led some museum directors to begin to question the role of an IMAX theatre at their institutions. The Air and Space Museum in Washington and the Museum of Natural History in New York both refused to screen the film. Others, like the Canadian Museum of Civilization, accepted the film, but still complained about what they saw as a change in direction.

As the corporate structure expanded, and theatres were built worldwide, the films began to reflect this appeal. The universal family flick had to become more attractive to international markets. It becomes increasingly difficult to identify a specifically Canadian interest being reflected or represented on the great screen of IMAX. While evident as a corporate infrastructure, and as a set of technological patents of an internationalizing industry, the question of the representation of Canada is pushed further from consideration. The consequence has been the resounding success of a Canadian corporation which only continues the cinematic absence of the nation, and this is only highlighted by U.S.-based WGIM’s acquisition of IMAX. It is *the* Canadian cinematic apparatus, and it has little to do with Canada. Films about Canada are produced, but increasingly IMAX must be specially commissioned to do so. The need for official national sponsorship extends the expo-mentality of national culture.

Canadian Cinema and Geographical Transformation

Before Expo ‘67, before they worked together on the *Labyrinth* project, some of the key participants in IMAX’s success, most notably Colin Low and Roman Kroitor, were part of Unit B of the NFB. Formed in 1939, it now seems a point of historical irony that the NFB, that institutional body charged with being the “eyes of Canada,” confronted a world war that overdetermined its filmmaking efforts. The NFB became a war film producer, often with a view to international reception, as guided by the first Film Commissioner John Grierson. The project of national cultural definition was put on hold. Immediately following the war, the same pre-war void was still apparent; a crisis of institutional identity loomed. If the NFB was to represent Canada to Canadians and the world, what manner of representation would that be?

Formed after WWII, Unit B of the NFB began to present a coherent and distinct image of the possibilities of representing Canada. Its height in the 1950s is etched in the history of English-Canadian film as the Golden Years. Under Tom Daly, Unit B included Colin Low, Wolf Koenig, Roman Kroitor, Stanley Jackson, and Terence Macartney-Filgate, with the occasional participation of others at the film board like Marcel Carrière, Michel Brault and John Spotton. Importantly, Unit B was seen as a move away from war-time didacticism towards a poetic naturalism, instead taking cues from photographer Henri Cartier-Bresson, the new British documentary movement and eventually Italian neo-realism and the films of Jean Rouch.

There is still an important history to be written which investigates how this unit has come to be celebrated here and abroad, to the exclusion of other efforts. What have critics, cultural authorities and policy-makers recognized as being the appropriate, even ideal, vision of nationhood as presented by Unit B? Here, the role of then Film Commissioner Albert Trueman can not be underestimated. From the moment of his appointment in 1953, he was well aware of the continuing image of the NFB as a propaganda machine. He began a publicity campaign, personally travelling and lecturing
extensively, in an attempt to sell the successes of the film board, particularly as an educational film body. And one of the films that he unfailingly promoted as an exemplary product of the NFB was Unit B's *Corral* (1953) (Evans 1991, 37).

*Corral* is a low-budget film, directed by Colin Low – his first live action film after his time spent in animation with Norman McLaren – and shot by Koenig for the “Faces of Canada” series. It is a lyrical 11-minute portrait of a solitary cowboy taming a horse, photographed against the Canadian Rockies. There is no voice-over narration; indeed the only sound is a single guitar, whose score cost $3,670 of a budget of $4,582 for the entire film (Evans 1991, 38). For their efforts, Unit B received its first international recognition, a first prize at the 1954 Venice Film Festival.

With the film’s simplicity, many have pointed to the “wholeness” of its vision, to the romanticism of a harmonious relationship between human and nature. It also presents a quite re-introduction of the Western myth in a gentler, more Canadian manner than the U.S. version. One can even suggest that there is a certain shy individualism presented by the anonymous cowboy. Evidently, simplicity leads to the mythic; the necessary narrative elements (protagonist, antagonist, special abilities of the hero, conflict, resolution, etc.) are all present in a minimalist fashion. Man, horse and rugged landscape can be taken as iconic components of some (any) myth we all recognize: about masculinity, about solipsism, about nature and civilization, about tradition, about internal battles made manifest, and so on.

The film’s attention to formal detail is remarkable. As Grierson commented, *Corral* is a poem about “man and the perpendicular” (Evans 1991, 39). This is probably a reference to the particularly stunning fast, and steady, tracking shot of the cowboy galloping along. The film is truly an essay in the subtleties of filmmaking. In this respect, I want to argue that the location of the actual power of the film is film technology itself. The “taming of nature” theme is actually an alibi for the wonderful movements of the image. The absence of a voice-over or commentary serve to heighten the attention to the visual image. From the close-up of a hoof stumbling on a rocky terrain to the vista of the in-between landscape of plain and mountain, this film reveals and celebrates its own filmic construction. The film’s often described lyricism arguably has less to do with the subject matter (a horse minuet) than with the nature of filmmaking and the art of narrative. The film announces its fascination with its power to represent, as opposed to, for instance, any interest in social reality or commentary. This is not a Brechtian claim to the film’s self-referentiality, for there is absolutely no distanciation here. Instead, *Corral* betrays a sense of wonder in the technology of film.

So it is not at all surprising when a rather large shadow of a camera in motion glides across the screen from the centre to the bottom midway through the film. It occurs when the cowboy wraps a rope around a post in the middle of the corral. The camera’s shadow (is that Wolf Koenig’s silhouette as well?) is cast upon the post. It is possibly a mistake. Yet, in a film so aware of technique, constructed by such perfectionists (e.g. reports of producer Tom Daly’s intense scrutiny in the editing process), it is unlikely that such a glaring intrusion went unnoticed. Nonetheless, the intentions, or oversights, of the artists at this point are of little concern. The shadow is there, and it is perfectly consistent with the ontological relationship that is constructed between the screen image and the technologies of representation. This is an important moment in the circuit of visibility;
that irreducible relation enters an additional phase in which the means of representation are the represented.

This is a pivotal facet of the meta-myth of nation. In Canada, the idea of national identity has long been defined as a "search." It is the journey, the becoming, the telling, that delineates Canadian national specificity. This is the central notion behind a presumed national cultural absence. This absence refers to the lack of a single agreed-upon space of nation, which is not to suggest that there is no culture. Benedict Anderson indicates "that nationalism has to be understood by aligning it, not with self-consciously held political ideologies, but with the large cultural systems that preceded it," in reference to religious communities and dynastic realms (1991, 12). The suggestion is that the cultural dimension grounds the historical emergence of the nation. The construction of some imagined coherence or unity coincides with claims to forming a national community. Canada's experience has been different. Instead, there has been a mobile and mutable national cultural presence, a certain incoherence that is lamented by some and praised by others. The stories shift, and though consistent themes are eked out, only the mode of telling appears to remain. Thus, the move toward an understanding of "nation" in Canada is a move toward a reading of the fundamental "framework of thought" in the imaginings of a Canadian nation, that is, the production of a discourse about "nation."

Many have written of the technological imperatives of Canadian existence. The legacies of Harold Innis and his contemporaries, through the nationalist conservatism of George Grant or the socio-historical formalism of Marshall McLuhan, have established a formidable tradition. The abundant variety of arguments does not cloud a basic conviction that technological relations are centrally determining of contemporary Canadian social, economic, and political relations. Maurice Charland (1986) and Arthur Kroker (1984) in different manners extend the argument to say that Canadian identity consists of ties not to people, "but to their mediation through technology" (Charland 1986, p. 197). A version of this history highlights the shift from an economic conception of Canada, through the space-binding technology of the railroad, to radio's, and then television's, "annihilation of space." Here, carriers of culture and ideology replace container technologies for the transportation of goods.

One of the striking aspects of this tradition is that transportation acts as the model for the activities and consequences of technologies. Early moments of this fascination include Innis's doctoral dissertation, published as History of the Canadian Pacific Railway (1922), Donald Creighton's study of the economic traffic along the St. Lawrence and its control by the Montreal merchant elite in Commerical Empire of the St. Lawrence (1937), and G.P. de T. Glazebrook's comprehensive A History of Transportation in Canada (1938). They suggest that innovative modes of transportation were necessary due to the particularly cruel constitution of Canadian geography, with the effect of structuring economic and social relations. This northern part of the continent was but a natural impediment to easy exploitation; a complex transportation infrastructure circumvented those hazards. Transportation, by water then by rail, put in motion not only goods and people, but also the myth of transcending geography. In this vein, the continent, as both a physical and psychic entity, was re-written, its contour constructed along with its maps. The distance between destinations was shortened, making the hinterland more accessible. Importantly, a new set of relations between the
metropolitan centres and the frontiers of each region emerged, described in J.M.S. Careless's (1989) frontier/metropolis thesis of Canadian history. This spatial tension cuts deeply into the Canadian psyche. Not surprisingly, evidence of this will to continental inscription surfaces frequently. For instance, Arthur Kroker finds the CN Tower to be a powerful reminder of our immersions in the processed world of communication technologies: it combines function (communication), entertainment (restaurants and tours), and corporate ideology (the tower is sign of Toronto's entry into the modern project). And this display of technocratic architecture is also a vivid reminder of the degree to which Canadian experience has been shaped by the spread of communication technologies (the railway, radio, television, telegraph, and microwave transmissions) across the landscape (1984, 9).

How does Corral's technological self-reflexivity extend the geographic transformation noted in the Canadian experience of transportation and technological development? First, its film-scape is rather cryptic. It is not clear where the settings are with respect to one another. Where does the cowboy arrive from? Where are the mountains in relation to the corral? For instance, there is no sense of "home" to travel away from, as would be expected in the traditional Western myth. Even the corral seems to materialize rather like a mirage. The film writes the Albertan panoramas as a series of locations, or as that which waits to be written. Film, and the technology of film, thus becomes more than a process of representation; it is a transformer of geography. With film in the landscape, the geographic and the filmic are interchangeable. The two are bound by an irreducible linkage of technological self-reflexivity, and powerfully so in the Canadian mind. Though the importance of the power of film to represent a consistent and recognizable national landscape is not uncommon, the inverse — film in and as the national landscape — is unprecedented.

Experimental film amply represents this geographic transformation as well. For instance, Michael Snow's La Région Centrale (1970) extends these ideas. Snow mounted a camera on a computerized stand and situated it in an isolated and barren location near Sépt-Îles, Québec. He programmed the computer to move the camera in an erratically circular manner after the filmmaker had departed. The dizzying product provokes a similar connection between the geographic and the filmic, in which the computerized camera is literally alone with the Québec landscape. With this technological intrusion into the wilderness, the history of colonization is implicit; Snow brings to the fore the technological will to capture — though not tame — the harshest of climates and terrains. The road to Empire in this American universe is laid down by the dream of this technological imperative. Snow achieves this commentary from a spiralling and disorienting point of view; the technological presence is necessary to the film but the impression is nonsensical. The interest, the filmic interest, however, is in the spectacle of the relationship between the desolate landscape and the solitary computerized camera.

From the poetic documentary Corral to the formal experimental film La Région Centrale, there is a contiguous tie between the geographic and the filmic. This relationship is best conceived as one of filmic cartography. The films transform understandings of geographic space, a process that arranges the land as a knowable entity, though not necessarily a known one. The cipher of the land becomes the ideological container of dreamed images and composites of national desires. As Homi Bhabha comments, "landscape is the in-scape of national identity" (1990). Images mobilize the certitude of the land, and its investment with social meaning.
Visual mapping through film also makes the geographic not only the text of nation, but a film text of nation. Through two trajectories of the documentary and the experimental traditions of Canadian film, this ontology of film technology and the national landscape reaches its conceptual height, and its popularization, in IMAX. With clear echoes of Corral, the presence of the IMAX camera in the film itself is common. Titanic involves much discussion of the specially designed cameras that will be submerged, and there is a moment in Destiny in Space (1994) when narrator Leonard Nimoy comments upon the shadow of the IMAX camera as it passes over the outside of a space shuttle. The perpetual attendance to the technological structure makes IMAX reflexive by its very design. Its incorporation into the thematic concerns of IMAX is an unavoidable path.

A question remains, however, concerning the options left open for images of nationhood by technological self-reflexivity, a question complicated by IMAX’s increasing internationalization. If IMAX involves a particular phenomenology of film, as supplemented by the representation of the modes of representation, how can this serve as a site for contemporary nationhood?

Future Cinema, Future Nation

One of IMAX’s most consistent, perhaps its founding, claim is that its technology plugs into our system of vision. The “natural” human system of the senses validates IMAX’s claims of “complete” experience and participation. IMAX vigorously promotes itself as a rather literal embodiment of McLuhan’s suggestion that technologies are the extensions of human beings. In much the same way that virtual reality dreams of its future, IMAX offers a total transportation and the means of confusion between the technological enhancement and human vision. In contrast to IMAX, however, virtual reality currently far more interesting to think and write about than actually experience.

With IMAX, the technological “annihilation of space” operates at the sensory level; IMAX produces the appearance and sensation of transportation. Paul Virilio describes it as “cataract surgery.” He writes that it is non-Euclidean cinema in which the absence of depth means “we can no longer separate film from auditorium” (1990: 171). The loss of spatial orientation makes the body appear to move. The spectator’s body fades and becomes a loose centre of visceral responses, provoked into the illusion of movement, travel, transportation, as well as vertigo, velocity, pleasure, and nausea. Another expanded cinema format, Showcase, using 60 frames per second, tests the audience to demonstrate that the more rapid film increases breathing and pulse rates (Burstyn 1987).

More than just a string of vistas, the cinema of IMAX is really about movement, more specifically, flight. There is an obsession with aerial photography, with placing the audience in high places and speeding across diverse terrains. Many of the films include shots from, or are explicitly about, jets, stunt pilots, hanggliders, parachutists, helicopters, space shuttles, and war planes. In the realization of this thrilling reverie – the capacity of flight – the cinema of IMAX equally obliterates the ground. It passes fluidly; velocity shrinks the world. The centrality of flight is built into a theatre, in Poitiers, France. It has a transparent floor through which the audience can look at a second screen running synchronously with the vertical screen in front. This innovation of IMAX Corporation goes by the name IMAX MAGIC CARPET.
Through 1991, directors Colin Low and Tony Ianzelo travelled with their IMAX crew across Canada shooting footage for *Discovery*, whose title would be change to *Momentum* just before its release, for the Seville Expo ‘92. The film’s Canadian premiere was at the Canadian Museum of Civilization on Canada Day. It is an NFB-IMAX co-production, 15-minutes in length, and costing $4.4 million. The filming itself was news, with reports on Low’s activities in every major newspaper. The film’s objective was to “illustrate Canada’s natural environment coast-to-coast and show Canadian achievements in architecture and technology” (Canada Newswire 1990), again demonstrating the link between the natural and the technological that drives IMAX. And, as expo-mentality facilitates, External Affairs and International Trade Canada participated in the scripting of the film. Images include a close-up of a mineral crystal at the Canadian Museum of Natural Sciences followed by the “crystal-like” Great Hall of the National Gallery, and Kurt Browning skating in the West Edmonton Mall. In keeping with the theme of “momentum,” there is also a dog-sled team travelling across a frozen lake, skiers on a glacier, and cars negotiating a Montreal snowstorm. The conventional IMAX fascination with aerial photography is well represented with images taken from a Lear jet and helicopter shots of Parliament Hill. The film limits the representation of multicultural communities to performances, mostly dances.¹⁴ And there are several shots of what has become a stock NFB image: children looking, in wonder, at (Canadian) museum exhibits.

*Momentum* highlights two important features of this form of nationalist cinema. First, there is an ideology of recognition, where the film invites the viewer not only to identify familiar locations but to acknowledge that this process of recognition is something shared. The logic is that this is *our* museum, *our* parliament, *our* tundra, *our* highway, and so on. The film becomes a selection of taken-for-granted images of the national domain, which, of course, serves to mask their ideological construction. Second, the emphasis upon movement, as the title announces, suggests that it is the *passage between sites*, rather than the sites themselves, that forms national cultural awareness. The film begins with a toy airplane and ends with an aerial shot of a plane flying low over a meandering river. Where the camera is not simulating flight, it is frequently capturing birdlife (seagulls and a hummingbird are particularly memorable). The relationship between these two aspect – recognition and passage – constructs a certain politics of speed; IMAX film technology asserts a continuous relation between driving, flying, dog-sledding, skating and skiing. The politics of speed introduces a passing but intimate connection to the changing landscape. Watching *Momentum*, then, is a process of surveying the outer-reaches of the national domain from an urban perspective. This also constructs a mobility/domus dichotomy, where the “freedom” of movement is a particularly masculinist freedom against the imagined permanence of the feminine “home.” Meaghan Morris (1988) has demonstrated, through a discussion of the tourist

¹⁴ One strange moment involves an Inuit artist who begins to dream of her past. The image no longer fills the entire screen, but is instead broken up into a multiple images that bear a remarkable similarity to the third theatre of the *Labyrinth* exhibit. One might suggest that here Expo ‘67 operates as the pan-Canadian mode of imagining the past.
motel, the centrality of this to the formation of the "national home," a concept that requires both the spectacle of mobility as well as its domestication.  

With the importance of movement and flight, IMAX films demonstrate a Canadian technological imperative: the transformation of the landscape into something whole and something shared. The diversity of terrain is amply evidenced as our bird's eye perspective passes rapidly from tundra to mountain. Vastness is obvious from the frequent broad vistas presented; but their juxtaposition, their sequencing, confirms our movement and the distance covered, not to mention the breadth of the filmmaking effort. This constructs what Virilio calls "an artificial topological universe: the direct encounter of every surface on the globe" (1986, 136).

Even Rolling Stones At The Max presents a landscape of audiences and songs constructed for the film only. In the conventional "rock-umentary," the live performance is the central driving force. The extremes and exertions of rock performance lend the impression that one is watching something ephemeral, something that cannot be duplicated, and ideally, some sort of epiphany for the performer. Taken from footage shot at five Rolling Stones concerts in three European cities, At The Max does the opposite; it promises that none of the songs appear as they were performed. Each song, both image and sound, was assembled in post-production: a Keith Richards solo from Berlin, shots of Mick Jaggar from Turin, a beat from Wembley stadium, and so on (Gentry 1992). The film has no sense of locale; there is no announcement of when we are seeing a Berlin or a London audience. This is the concert film of a new Europe. The doctoring of live performance is no innovation, but not long ago, it would have been unthinkable to filmically confuse the difference between Great Britain, Italy and Germany. At the Max is the first Maastricht movie.

In one way, this is the centrist's dream that space can be annihilated. Though especially relevant to the Canadian context, it speaks as well to new internationalized geo-political relations. Of course, as is evident in Canadian politics, the margins continue to frustrate that dream, if only by insisting on asserting themselves. Still, IMAX feeds that dream, in the end, the supreme nationalist and colonialist dream: it wants to obliterate geography by capturing all of it! While the broadcast media can touch an entire population simultaneously, as though distance did not matter, IMAX does the reverse by bringing that distance to the audience. In this inverse form of tourism, the world is squeezed and edited into a single package. If the cinema of IMAX promises one thing, it is the physical sensation of transportation. IMAX is a virtual container technology, the ultimate convergence of communications technology with the movement of goods.

The first subject of motion picture in Canada was, not surprisingly, the natural wonder and tourist phenomenon, Niagara Falls, filmed in 1896 by three different companies. A second point of fascination was the Rockies, most often consisting of images shot from a Canadian Pacific Railways train, recording its journey westward. By the turn of the century, CPR recognized film's advertising potential and used it to

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15 The role of this drive of the metropolitan perspective of the frontier in the formation of regional identity in Canada is best development in the work of J.M.S. Careless. See for instance Careless (1989) Frontier and Metropolis: Regions, Cities, and Identities in Canada before 1914.
encourage immigrant movement to the Prairies. They commissioned the Bioscope Company of Canada to complete a series of films, called Living Canada, which "covered the country from Quebec to Victoria -- following, of course, the CPR railroad" (Morris 1978, 34). At this initial moment, with subject matter and treatment not unlike that of IMAX, we find the conjuncture of film, transportation and nation. This was to be extended by the first national radio network, created by Canadian National Railways, a crown corporation, to entertain its passengers. This same discursive conjuncture is evident in the cinema and apparatus of IMAX Corporation.

Since the early moments of filmic representation of the nation, film's technological presence has grown until no other subject could compete. In the cinema of IMAX, representation is boring, because it has all been seen before. The actual subject matter of the film is superfluous. Instead, IMAX is about the spectacle of seeing and the technological excess necessary to mount that spectacle. There is a certain ineluctable attendance to the film technology; it is seen as much as the actual image on the massive screen. This is the excitement of seeing shadows on the landscape. They are cast by the helicopter or airplane from which the perspective of the image originates. And they are our shadows.

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