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Labyrinth: Cinema, Myth and Nation at Expo 67

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March 1999
A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfilment of the requirements of the degree of Master of Arts.

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Abstract

This thesis provides an historical description and analysis of *Labyrinth*, the National Film Board of Canada's pavilion at Montreal's Expo 67. The thesis discusses *Labyrinth* in the context of traditions of multiscreen cinema and immersive artworks; further it relates the pavilion's structure, film content, and role in Expo within the context of Canadian art traditions and the 1967 centennial celebrations. Analysis of the pavilion is grounded in Bruce Elder's treatise on Canadian cinema entitled "The Cinema We Need". The thesis also explains the technological and formal connections between *Labyrinth* and the invention of IMAX cinema.

Sommaire

La présente thèse dresse une description historique et une analyse du pavillon *Labyrinthe* de l'Office national du film dans le cadre de l'Expo 67 de Montréal. Elle présente le pavillon *Labyrinthe* dans le contexte des traditions du cinéma en multivision ainsi que des oeuvres d'art qui produisent un effet d'immersion; elle expose, de plus, la structure du pavillon, le contenu du film et son statut en tant qu'élément d'attraction de l'Expo et en tenant compte des traditions dans l'art canadien et des célébrations centenaires de 1967. L'analyse du pavillon repose sur le traité de Bruce Elder sur le cinéma canadien intitulé "The Cinema We Need". Cette thèse présente également les liens technologiques et formels entre le pavillon *Labyrinthe* et l'invention du cinéma IMAX.

Acknowledgments

I wish to acknowledge the contribution of my supervisor, Will Straw, as well as Michael Century, who suggested that I investigate *Labyrinth*. Thanks also to Janine Marchessault, who supervised components of this research. I would like to thank Roman Kroitor for granting me an interview, and a special thanks to Colin Low for his cooperation and support. I appreciate the assistance of NFB librarian Rose-Aimée Todd, Bernard Lutz at the NFB Archives, Tom Daly for allowing me access to his papers, and Jennifer Rae at the IMAX Corporation. Gordon McLeod, projectionist at the Ontario Place Cinesphere, assisted me in locating and viewing IMAX prints of *Labyrinth* and *Tiger Child*. Collections accessed include the NFB Cinérobothèque, and the McLennan and Blackader-Lauterman Libraries at McGill University. I gratefully acknowledge the financial support of the Film Studies Association of Canada's Gerald Pratley Graduate Student Award, and of my Godmother, Soheir Girgis. And finally, special thanks to my Mother, Patricia Whitney, for her personal and intellectual support.

Introduction

Labyrinth/Labyrinthe[1] was one of several Theme Pavilions built for Expo 67 in Montreal. The federal government commissioned the National Film Board of Canada to create a large-scale work in concert with the Expo theme of "Man and His World." The result was one of the most popular pavilions at Expo, attracting well over a million visitors, many of whom braved seven-hour line-ups to experience this "$4,500,000 three-stage cinematographic adventure" ("Labyrinth" 548).

This thesis will examine the *Labyrinth* phenomenon, and will do so in four chapters. The first provides a brief history and description of *Labyrinth* and explains the circumstances that led to its creation. The second chapter locates *Labyrinth* within the history of multiscreen film, multi-media, and immersive art, while demonstrating the vital role of perceptual manipulation in *Labyrinth* and how it relates to narrative. In order to explore *Labyrinth*'s status as an immersive work, I

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[1]Documents concerning *Labyrinth/Labyrinthe* refer to the pavilion by both its English and French names, or alternate between the two. Both names are accurate and official, but for the purposes of this paper I will use the English version, without an "e." I should note that the sign on the actual pavilion at Expo used only the French title so as not to "clutter" the side of the building (Low 1998).

employ theories of other immersive technologies and interactive art works, from flight simulators to video art installations. This analysis is not meant to conflate these various forms and their respective aesthetic qualities, but to demonstrate how the notions of immersion, interactivity, and participation are addressed in twentieth-century art, and how they are manifest in *Labyrinth*.

The third chapter initiates a discussion of *Labyrinth* as a Canadian work, both as a descendant of Canadian traditions in painting and cinema, and also in its expression of Canadian nationhood within the context of the 1967 centennial celebrations. Issues of *Labyrinth*'s Canadian character are addressed in terms of traditions of landscape art, and questions of nature, spatiality, and multiplicity as key factors in Canadian thought. Much of this discussion is grounded in Bruce Elder's article on Canadian film entitled "The Cinema We Need", a statement whose vision of the ideal Canadian cinema is in large part manifest in *Labyrinth*.

Finally, the fourth chapter addresses *Labyrinth* as a technological and aesthetic progenitor of IMAX and explains how *Labyrinth*'s expression of these varied concepts is now installed in new cinema technology.

This thesis is based largely on primary sources: interviews and archival material. The archival sources are internal NFB documents detailing the conceptualisation and creation of *Labyrinth*. I have also consulted media clippings from the summer of 1967 which discuss cinema at Expo, and articles from industry journals which review *Labyrinth* as both a technical and artistic phenomenon. Sources also include documents related to Expo 67 planning and promotion, my interviews with *Labyrinth*'s director, Roman Kroitor, and production designer, Colin Low, and literature concerning art and film of the late 1960s. The archival recovery project is one of re-construction not so much of *Labyrinth* itself but of the visions, attitudes, and impressions that went into its creation, its coverage in the media, and its appreciation by its visitors.

Any attempt at textual analysis of *Labyrinth* is complicated by a number of factors. Discussion of the films themselves is particularly difficult, since there are no complete prints of the Chamber I films in existence.[-] However, in 1972, a selection of images

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[-]The original negatives are stored at the NFB, but there are no avaliable prints of Chamber I. In 1979, the Chamber III films were optically printed onto a

from Chambers I and III were optically printed onto IMAX film and were shown at the Ontario Place Cinesphere in Toronto under the title *Labyrinth IV*. This IMAX print is still available, and my comments about Chamber I images are based on this film. The available film records are of course very valuable, but *Labyrinth* can never be truly re-viewed as the experience is entirely dependent on the pavilion's architectural features and the accompanying sound system, which are no longer intact.

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single frame so they could be viewed in combination. This film is available on video from the NFB under the title *In the Labyrinth*.

CHAPTER I: *Labyrinth*: An Overview of its Creation and Development

Labyrinth is bound by its historical status as an Expo 67 attraction. While any work ought to be considered within its historical context, *Labyrinth* was created for a specific event with unique spatial, temporal, and thematic boundaries which cannot be re-created.

Labyrinth was inspired by the Greek myth of Theseus and the Minotaur. The Minotaur was a half-man half-bull creature who lived inside the labyrinth of Crete, and who demanded a yearly sacrifice of fourteen young Athenians. Theseus, the hero, enters the labyrinth where he outwits and slays the Minotaur. The creators of *Labyrinth* used this story as a metaphor for man's confrontation of the beast within himself, through which he might be reborn. The filmmakers sought to create a "Total Environment" which would lead its visitors on a personal quest where each would come to terms with the "inevitably incomplete realization of one's nature" ("Labyrinthe" 3). The mythological conceit of the pavilion was developed under the guidance of Northrop Frye, a collaboration that will be discussed later in this chapter.

An internal NFB document on the feasibility of the pavilion, prepared in 1964, indicates that *Labyrinth* was envisioned as a multi-screen, multi-media, immersive project. Its creators emphasised their interest in establishing a closer relationship between film and its surrounding structures, promising "a union of the latest developments in cinema technique with the arts of architecture" (NFB 1964, np). Visitors would move through a series of chambers, each with a different type and configuration of cinematic projection. This 45-minute "total experience" was to be enhanced by the use of sound, lighting, the occasional voice-over, and, quite literally, smoke and mirrors. Roman Kroitor explained that the architectural structure of the pavilion was meant to symbolise "the world" while the visitors' movement along its pathways was to represent the "thread of a person's life" ("Labyrinthe" 3). The chambers themselves represent stages in human development, including Childhood, Confident Youth, Conflict, Death/Metamorphosis, and Celebration/Rebirth.

The Pavilion

As visitors entered the pavilion, they were met by a 500 pound styrofoam sculpture of a Minotaur's head - a stylised merging of the skulls of a human and a bull. Colin Low created this sculpture using a bison skull as a model (Low, 1998). The visitors walk past images of ancient labyrinths and explanations of their mythological significance. This procession was accompanied by electronic music composed for the pavilion by NFB staff composer Eldon Rathburn.[1] Before they entered the first chamber, the visitors were divided into groups of 40 persons and distributed by elevator among the four levels of the building. There they would sit in dimly lit waiting rooms before entering Chamber I. Although nearly 1000 people were inside the pavilion at any one time, the division of the audience into smaller groups allowed for a sense of intimacy.

Chamber I: This chamber, themed "Childhood/ Confident Youth" was shaped like an elongated horseshoe, and was described architecturally as resembling "a dark cathedral" (Rosein 26). Visitors

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[1] A recording of Rathburn's score, conducted by Louis Applebaum, was distributed under the title *Labyrinth*.

stood on four levels of balconies on each side of the chamber (40 people per balcony). 70mm films were projected onto two 38-foot screens, roughly the size of Cinemascope screens, arranged in an L-configuration, with one positioned vertically at the end of the chamber, the other horizontally on the floor. The 18-minute film consisted of documentary footage shot over three years in ten different countries. Although the film conformed neither to classical narrative nor documentary styles, the images presented an allegorical narrative of the progression from birth to adulthood. The allegorical function of these images was expressed through the diegetic connections between the two screens. For example, in one sequence, a father looks down from the vertical screen to a baby projected on the horizontal screen; a boxer is knocked out in the vertical, then "falls" onto the horizontal in defeat. The filmmakers also used the unusual configuration of screens to create unique physiological sensations. The horizontal screen was positioned such that the viewer had to look over the balcony railing at an angle that would change the level of fluid in the inner ear, causing sensations of vertigo (Low, 1998). This effect is best employed in a scene shot from a helicopter,

where the vertical screen showed an image of the horizon, while the horizontal screen offered a view of the forest below.

The sound system consisted of five main speakers, two behind the vertical screen, three beneath the horizontal. There were also several hundred small speakers distributed throughout the chamber which allowed for surround sound and very precise directional effects.

Chamber II: The visitors then left the first chamber, but remained on their separate levels as they entered the second section, called "The Maze." Visitors were not meant to get lost in The Maze, but it was designed in a way that elicited feelings of confusion, weightlessness, and even disembodiment. The visitors followed a zigzag path around large prisms of glass and reflective surfaces. The prisms contained thousands of tiny lights which turned on and off or changed colour in response to signals from the audio track. (A press release from the Libbey Owens Ford Glass Company, who produced the materials for The Maze, describes the prisms as constructed of a specially designed glass that both reflects and transmits light, creating the illusion of infinite space.) The visitors

moved through the chamber on suspended walkways. When the lights were directed onto the audience, they saw themselves reflected infinitely in all directions. However, when those lights were turned off, "the audience essentially disappears" and only the moving lights in the prisms are visible (Low, 1998).

The sound effects consisted of soothing electronic music and animal sounds. A special feature of The Maze was the six-channel audio system which created "moving" sound. The passageways were relatively narrow, which were meant to provide an illusion of intimacy for the visitors even though they were part of a large group. At the same time, the prisms were intended to give an illusion of "seemingly endless space" (Michener 58). The notions of infinity and intimacy may seem contradictory, but they conform to the agenda of "controlled confusion" which dictated the construction of *Labyrinth* ("Labyrinthe" 6).

Chamber III: This is the chamber that most closely resembles a typical movie theatre, in that the audience was seated in rows before the screen. However, the films were projected onto five screens arranged in a cruciform pattern. There were small spaces between the screens. The filmmakers used the

compositional potential of the five screens in three distinct ways: to project large images which occupy all five screens, to show five of the same image, or to juxtapose a number of different images. The projection system incorporated five 35mm projectors. The film's images include a rocket launch at Cape Canaveral, Winston Churchill's funeral, and an African man killing a crocodile. This application of multiscreen technology allowed for sophisticated uses of rhythm and montage.

The editor, Tom Daly, designed a specialised editing table that allowed him to view all five images at once. The *Labyrinth* production team constructed a scaled-down version of the five-screen projection room in an Canadair hangar so they could test-run the film and ensure that the editing process was successful (Vineberg 1965, 28). The decision to use five screens was related in part to the architectural verticality of the building; since Chamber I required a vertical 70mm screen, the rest of the pavilion had to fill large vertical spaces. The original plan for *Labyrinth* would have included several more chambers and different multi-screen arrangements, but the final three-chamber model prevailed to accommodate the heavy audience

traffic flow of a World's Fair attraction (Low, 1998).

In spite of these curtailments on the realisation of *Labyrinth*, it is important to note that this was one of the few cinema projects in the history of World's Fairs where filmic concerns took priority over architectural ones. The Expo management took the unprecedented step of granting full control of architectural design to the *Labyrinth* producers, thus avoiding the technical problems that plagued other pavilions:

> ...weird optical problems turned up on site as one group ran up a wall to cut off the other's projector ports; overly artistic designers removed critical portions of structures to leave the projection screen sitting in full sunlight (Graham 212).

Labyrinth avoided these difficulties because the filmmakers had the power to order changes in the pavilion design in order to accommodate their cinematic vision (Vineberg 1965, 35). Colin Low worked in close consultation with Harry Vandelman of the architectural firm Bland, Lemoyne & Shine to ensure that the building would serve the films (Low, 1998).

Labyrinth was located in a relatively remote area of the Expo site, next to Moshe Safdie's Habitat 67. Expo organisers were initially concerned that visitors

would not bother to venture so far away from the fair's central attractions to see an obscure film experiment, and that *Labyrinth* would be a disaster. The producers considered distributing a booklet that would explain the mythological meaning and technical innovations of the pavilion, and act as a promotional device to attract viewers to that remote area of the Expo site. However, they reconsidered after consulting with Fernand Cadieux, who acted as a philosophical adviser on *Labyrinth*. Cadieux suggested that *Labyrinth* should be promoted only by word of mouth, locating it further in the oral tradition that spawned its mythological structure (Daly, 1964). Cadieux's strategy worked - the first viewers were so impressed that by the second day of Expo 67, *Labyrinth* had become one of the most popular pavilions.

Inspiration and Experimentation

Many of the *Labyrinth* filmmakers, including Kroitor, Low, Daly and Wolf Koenig had been members of Unit B, a group of NFB filmmakers who began their collaboration in the 1950s, and who devoted to a sophisticated documentary philosophy that sought to move away from docudrama and the Griersonian tradition

toward a conjunction of improvised shooting, speculative humanism, and technical experimentation (Clandfield 28). Unit B was inspired by Henri Cartier-Bresson's *The Decisive Moment*, a book of photographs of everyday events that captured "the drama of the ordinary moment", and also by the development of intimate documentary styles in 1950s Britain (Evans 70).

Kroitor explains that the experience of working in Unit B, particularly the production of the *Candid Eye* series of films, prepared the filmmakers for the *Labyrinth* project (Kroitor, 1998). The *Candid Eye* concept was developed in 1958, and its films were meant to represent "real people doing real things". For example, for one film the crew shot large amounts of footage at a Salvation Army shelter in Montreal before bringing it back to the studio to construct the film, creating "rhythms" through editing that allowed the raw material to create an impact on the viewer (Evans 72). The filmmakers deliberately refused to establish a shooting script, allowing the scene's authenticity rather than the filmmakers' authority to be the reigning principle (Clandfield 26). Whereas *Labyrinth* was shot with an established narrative and thematic

structure in mind, the shooting strategy was to film things and people that were interesting and beautiful, and then to make executive decisions later in the editing room. The experience of working on *Candid Eye* and other Unit B projects made the filmmakers comfortable with this documentary strategy. Although Unit B disbanded in 1964, most of its members worked on *Labyrinth*, and the "project would be a culmination of Unit B's attempt to integrate the immediate into a vision of something whole" (Jones 133).

The inspiration for *Labyrinth* came from a variety of sources, including ancient mythology, contemporary innovations in theatre, photography, film, and installation art. As I have mentioned, *Labyrinth* is based on the myth of Theseus and the Minotaur: Minos prayed to Poseidon to send him a bull as a sign of his divine right to rule. Poseidon complied, but on the condition that Minos sacrifice the bull upon its delivery. Minos agreed, but tried to deceive Poseidon by substituting another bull for the sacrifice. Minos' wife, Pasiphaë, fascinated by the bull's beauty, asked Daedalus to build a wooden cow for her so that she might have intercourse with the bull. The result was that Pasiphaë gave birth to the Minotaur - a monster

with the head and tail of a bull, and the body of a man. This manifestation was something of a surprise, since Minos himself was the product of his mother Europa's union with Zeus, who appeared to her in the form of a bull (Campbell 13). Minos commissioned Daedalus to design and construct a labyrinth to contain the Minotaur, and each year fourteen Athenian youths were sent into the labyrinth where the Minotaur devoured them. Theseus, the hero, planned to venture into the labyrinth to slay the Minotaur. Minos' daughter, Ariadne, who was in love with Theseus, consulted with Daedalus about Theseus' mission. Daedalus advised her to give Theseus a spool of thread that he might use to retrace his steps and find his way out of the labyrinth. Theseus took Ariadne's advice and successfully confronted and defeated the Minotaur.

The filmmakers did not seek to create a literal expression of this mythological narrative, but rather to use the archetypal forms present in it to create a meaningful work. In the early planning stages, the filmmakers sought the advice of thinkers including Fernand Cadieux and Northrop Frye, both of whom participated in a weekend-long consultation with the production team. This meeting took place in May of

1964, and was recorded in extensive notes produced by Tom Daly.

Northrop Frye made a considerable contribution to the allegorical structure of the pavilion and its films. Frye's first concern was that contemporary people were not familiar with the mythological narratives under consideration, at least not in their classical forms, and therefore it was vital that the ideas be communicated "in terms familiar in present-day terminology" (Daly, 1964). The filmmakers concurred and set out to create an experience that would raise the viewer's consciousness of his or her own process of personal transformation. It remains, however, that the mythological premise proved very important in the narrative and thematic structure of the pavilion.

Labyrinth is structured around the "seven stages of Man", stages of human development that were divided among the chambers thus: three in Chamber I, including Birth, Innocence and Youth, Chamber II/The Maze representing the Desert/Wasteland - the turning point in the hero's quest, and Chamber III representing Conflict, Death/Metamorphosis and finally, Rebirth. While many possible pavilion designs and screen configurations were under consideration, the final

model corresponds to Frye's observation that "every plot is a parabola" - the pavilion's architectural structure divides the narrative episodes symmetrically around the turning point of the Maze, which literally represents the labyrinth.

Frye's comments on the Maze as the expression of "the desert" are of particular interest. During a discussion of what type of imagery to use in the Maze, Frye suggests that the contemporary experience of the desert is found in "the big city [on a] hot summer day", where one is surrounded and bombarded by reflective surfaces - glass, metal, and glitter. Cadieux suggested that in order to foster introspection, this area of the pavilion should deprive the senses, emphatically refusing to offer images (Daly 1964). The final manifestation of the Maze shifted between these concepts, alternating between disjointed mirror images of the visitors and a starry void.

Expression of *Labyrinth*'s complex allegorical structure required innovations in cinematic technology and a sophisticated understanding of multiscreen systems. Roman Kroitor had achieved success with multi-image projects before *Labyrinth*. For example, the Canadian National Exhibition had asked the NFB to

prepare a display for one of the pavilions at their 1963 fair. Kroitor used this opportunity to conduct an experiment in multiscreen cinema that was a vital precursor to *Labyrinth*. The CNE display consisted of thirteen 16mm projections which formed a semi-circle around the audience. There was one central screen, and four groups of three screens arranged around it, each with a different theme. The images were culled from existing NFB material, particularly films that represented industry, the arts and images of people. Since these images were taken from pre-existing films, they were selected for their ability to stand on their own, independent of the context of their original films (Kroitor 1998).

The films were projected on endless loops, meaning that the show ran continuously throughout the day, but each loop was of a different duration, meaning that the relationship between the various images changed continually. The fact that a visitor might see an entirely different show every time he or she entered the pavilion underlined the potential power of multiscreen cinema to create complex and variable connections between diverse images. Since the images were culled from the NFB archives, the display was

something of a tapestry of Canadian life, and illustrated the NFB's role in providing images of Canadians to Canadians.

In preparing for *Labyrinth*, the filmmakers produced a number of short experimental films. In order to persuade Expo and NFB officials to support the *Labyrinth* project, the filmmakers devised demonstration films that would allow a glimpse of *Labyrinth*'s expressive potential. The filmmakers were intrigued with the idea of creating a sense of flight or vertigo, so they constructed a transparent platform of safety glass and installed it high above an NFB shooting stage. Expo and NFB officials were invited to stand on the platform and watch a film projected onto the floor below. The footage was taken from a helicopter flying over Montreal, and the viewers were very excited by the visceral thrill of this demonstration.

Another experimental film was *Faces*, which consisted of a series of images of human faces re-photographed from books and magazines and edited together by Tom Daly. The faces were split down the middle and re-combined in such a way that they appeared to transform into one another, indicating a type of formal unity underlying human variety. Unfortunately,

these, and indeed all of the experimental films that led to the creation of *Labyrinth* have been lost.

Previous multi-screen projects at World's Fairs also influenced the *Labyrinth* team. Multi-media experiments had long been a feature of the modern Czech theatre, particularly the work of Josef Svoboda, who originated the *polyecran* method (Trensky 45). Svoboda's *polyecran* productions incorporated multiple projections of both still and moving images into theatrical mise-en-scenes, and his technique attracted a great deal of Western attention, particularly for his work at the Czech pavilion at the 1958 World's Fair in Brussels (Goetz-Stankiewicz 41). Expo 67 featured a number of Svoboda multiscreen productions including *Polyvision* and *Diapolyecran*, created in collaboration with Emil Radok. The Czech pavilion also featured *Kinoautomat*, a combination film/live actor performance in which the actors would pause to ask the audience how the film should proceed. The audience would vote by pressing buttons connected to their seats, and thus chose collectively between 32 possible narrative outcomes (Shatnoff, 12).

The influence of the Czech theatre was evident at World's Fairs throughout the 1960s, most notably the

Johnson Wax and IBM pavilions at New York's Expo 64. *To Be Alive* was a three-screen film produced by Francis Thompson, an American filmmaker who had experimented with multiscreen techniques for many years before producing this highly influential work for the Johnson Wax corporation. Internal NFB documents indicate that Thompson and his colleagues were consulted in the initial stages of their Expo '67 planning sessions. While *To Be Alive* was a very successful three-screen production, Thompson later indicated that he would have liked to incorporate more vertical movement into this particular work by placing screens above and below the tryptich. This comment was a factor in the *Labyrinth* team's decision to employ a five-screen system in Chamber III (Kroitor, 1998).

Chapter II: Locating *Labyrinth* Within Multiscreen and Immersive Art Traditions

Experiments in multiscreen and immersive cinema were very popular and dynamic at Expo 67, but the ideas of multiscreen film and of the "total environment" as entertainment has precedents in the early days of cinema. In *Film Before Griffith*, John Fell gives an account of "Hale's Tours", the first cinematic immersive "ride" system. "Hale's Tours" first appeared at the 1904 St. Louis Exposition, and thereafter versions of the ride became popular attractions throughout the United States. The ride consisted of a stationary train car surrounded by movie screens. Spectators sat inside the train car as though they were passengers and watched scenes of passing landscapes through the windows of the car. The projection system was such that images filled the passengers' field of vision. In order to enhance the realism of the experience, the ride included artificial wind, sound effects, and a system of rollers which caused the car to vibrate just like a "real" train (Fell 120-122).

As I have suggested, interest in the immersive cinematic ride continues throughout the twentieth century, and carries with it ideological questions

about the construction of virtual worlds and the relationship between humans and their technological environment. In his study of motion simulators and immersive technology, Erkki Huhtamo explains that "thrill rides," which range from roller coasters to "Hale's Tours" to flight simulators, allow their users to re-enact a ritualized struggle between "control and catastrophe," where they can confront their anxiety in the face of mechanisation and industrialisation by expressing their repressed fears of the speed, power, and potential danger of our daily engagements with technology (174).

Immersive, widescreen and multiscreen cinema have long been associated with World's Fairs. The 1900 Paris Exposition featured the largest cinema projection ever attempted, a collage of ten 70mm images projected onto a 360-degree 300x30 foot screen. "Hale's Tours" had its debut in 1904 at St.Louis. Vitarama, a prototype of Cinerama, was introduced at the 1939 New York Fair, and was followed by other large-screen formats in Brussels (1958) and in Seattle (1962), until the introduction of IMAX at Expo '70 in Osaka and OMNIMAX fifteen years later in Tsukuba, Japan (Belton 87-88). World's Fairs provide an appropriate venue for

such presentations, because they allow for the construction of specialised exhibition spaces and attract a large audience which arrives at the fair expecting to see unusual and innovative forms of technologised entertainment.

This set of expectations is linked to the nineteenth-century origins of the World Fair phenomenon, which was developed as a venue to exhibit and promote the wonders of the industrial age, to be followed by the electronic, and now cybernetic ages. This is but one of the ideological questions associated with World Fairs, but it is significant in that they are in part premised on the visitors' desire to examine their relationship to technology. The "thrill ride" dynamic of confrontation with technology, which Huhtamo describes, is routinely expressed through the attractions of the World's Fairs. The theme of Expo 67, "Man and His World," conveyed a world that was often defined and articulated to its visitors via and in terms of technoculture.

Huhtamo supports the idea of techno-confrontation by citing the example of Disney's motion-simulator/cinema ride "Star Tours," which was flanked by other thematically related activities. Installed at

a number of North American tourist sites, including the CN Tower in Toronto, "Star Tours" simulates a trip into outer space, and gives the visitor an impression of adventure and spontaneity, when in fact the entire procedure is under the complete control of the pavilion's structure. "This arrangement turns the whole attraction into a kind of huge machine" (171). *Labyrinth*, although touted as a creative personal voyage of self-discovery, is described by its creators in the NFB's Technical Bulletin as a "sausage machine" which held careful control over the movement and conduct of its visitors ("Labyrinthe" 6). These notions do not necessarily contradict one another in an age of technoculture, where a person's quest for self-discovery is pursued through and within a technologised space.

In classical narrative cinema, every effort is made to render the technology of film production and projection transparent in order to encourage suspension of disbelief and create an illusion of realism. Walter Benjamin describes the idea of seemingly unmediated representation of reality as an "orchid in the land of technology" (233). Huhtamo explains that immersive systems tend not to pursue this ideal, as in an era of

technoculture, technology itself becomes an "object of desire" (171). For example, large-screen cinema formats such as IMAX constitute a new cinema of attractions, where the film technology is as much a selling point as the films themselves. People go to see an IMAX movie because it *is* an IMAX movie; a dynamic that is played out in the presentation of IMAX films, with their trademark-oriented publicity, and in some venues, the transparent walls of the projection booth, which encourage the audience to become familiar with the "behind the scenes" apparatus. IMAX films are usually introduced with pre-screening descriptions and demonstrations of the features of the theatre and its sound system. Similarly, *Labyrinth* presented itself and was discussed as a technical wonder, a "feat of engineering." This is not to say that the content of the films was unimportant, but *Labyrinth's* status as an Expo attraction was very much premised on its innovative employment of cinema technology.

While, as I have said, the narrative structure of the pavilion follows Theseus' path, the role of Daedalus in the story is also of interest to this discussion. Daedalus is an artist and engineer, and his technological contributions are integral factors in

the myth, allowing for the birth, containment and eventual defeat of the Minotaur.

> For centuries Daedalus has represented the type of the artist-scientist: that curiously disinterested, almost diabolic human phenomenon, beyond the normal bounds of social judgement, dedicated to the morals not of his time but of his art. He is the hero of the way of thought - single hearted, courageous, and full of faith that the truth, as he finds it, will make us free. (Campbell 24)

This description of the figure of the artist/scientist is powerfully resonant with the figure of the artist at a World's Fair, specifically the cinematic innovator who combines technological and aesthetic concerns to push the boundaries of the medium. The standard discourse of World's Fairs makes it explicit that the state of the global community can be ascertained through the state of its art and technology, where fusion of the two constitutes the highest achievement. This is made clear with the importance of architecture at World's Fairs, where each nation's primary statement about itself is the architecture of its pavilion - a clear manifestation of an idealised conjunction of aesthetics and engineering. Daedalus' faith in the truth, particularly the truth "as he finds it" reminds us of the mandate of Unit B, which in turn informs the

documentary style of *Labyrinth*'s images. This concept of truth is found in the fusion of scientific truth and truth as beauty.

Much of the imagery of Chamber I concerns transportation technology, particularly technologies of flight, a condition evocative of Daedalus. This imagery begins with an African boy weaving reeds into a toy aeroplane, complete with propellers. In a sequence that plays on this chamber's capacity to "toy" with perception, two cameras travel up the side of a rocket in an elevator - one camera focused on the rocket itself, the other camera hanging below, looking down the elevator shaft. These tracking shots are shown simultaneously, the former on the vertical screen, the latter on the horizontal. Other shots in Chamber I, as I have mentioned, were photographed from helicopters, travelling over urban and forest landscapes, but Chamber I also included an image of the Earth as it would appear from the surface of the Moon. Colin Low suggests that these images are related to the figure of Daedalus, as the sensations of vertigo and flight that are so central to Chamber I remind us of the doomed flight of his son, Icarus. Daedalus designed wings for Icarus and himself so that they might escape the wrath

of King Minos and fly to Sicily. Icarus foolishly flew too close to the sun, melting his wax wings and plunging to his death. Daedalus, who had more respect for the limitations of his technology, survived. This story is a clear comment on the dangers of technological hubris.

Indeed, the myths of Icarus and the Minotaur both warn of the dangers of arrogant pride: Minos' tragedies were the result of his lack of respect for the gods and for the position of power they had afforded him, while Icarus lacked reverence for the powers of nature. By refusing to do as the gods instructed him and sacrifice the bull, Minos alienated himself from his community, failing to properly assume his position as leader of his people (Campbell 15). The concept of community, technology and art as related expressions is central to the Expo ethos, and was consciously emphasised in *Labyrinth*.

The interplay of art, science, and the notion of global community are very clear in a particular Chamber III sequence which creates graphic matches between the juggling of a circus clown, the training of a Soviet cosmonaut and the exercises of a Russian ballet class. The direct association of clowns and cosmonauts, space

travel and ballet, indicates a clear characterisation of human achievement as an interplay of art and technology. *Labyrinth*'s representation of this dynamic using Russian images suggested a provocative definition of community, one that operated on the ambivalent fascination of Western viewers with their Cold War enemies.[4]

Labyrinth's drawing of technology to the forefront is in concert with the artistic practices of the 1960s in the areas of immersive, participatory, and installation works. Several journalists who covered *Labyrinth* took pains to assure their readers that it was ultimately a controlled and reasoned phenomenon, "executed with discipline and controlled imagination, not a chaotic 'Happening' or a contrived simulation of an LSD 'trip'" (Gilmour N.pg). It is true that *Labyrinth* is neither a "Happening" nor a homage to drug-induced delirium, but it presents itself as an

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[4]The images from Russia were created through an unprecedented collaboration between the NFB and the Soviet government, which ensured that images of Russia be made available to the filmmakers. The images include cosmonauts in training, a ballet class, and the interior of a Moscow department store. Images of Russia were of particular interest at Expo '67, and the USSR pavilion was among the most popular - indicating the extent of Cold War era curiosity and fascination with the Soviet "other".

immersive participatory experience, and therefore shares certain characteristics with its art world contemporaries. "Happenings" were touted as fully participatory artistic events, emblematic of the cultural environment of the 1960s, which placed emphasis on questions of audience involvement. Allan Kaprow, who orchestrated the first Happening in 1959, believed that "audiences should be eliminated entirely," meaning that the conventional passive, detached spectators should be replaced by active participants (Cornwell 204).

Even before Kaprow's work in the 1960s, artists like Rauschenberg were interested in "increasing the perceivers' responsibility and transforming audiences into participants" (Cornwell 205). For example, Rauschenberg hoped that his *White Paintings* would create an environment that forced the gallery visitor to notice the other people in the room, the time of day, the light and shadows of the gallery space, etc., such that everything in the space, including the visitor, became part of the art experience. In *On the Museum's Ruins*, Douglas Crimp describes the development of site-specific sculpture in the 1960s, explaining that such works are contingent on the viewer's temporal

and spatial relationship to the work, and thus every quality of the installation space is relevant in its outcome (Crimp 154).

Interactivity is usually associated with electronic and video based works, but while the *White Paintings* or *Labyrinth* may not seem as dynamic as a computer-based system, because they do not respond directly to the actions of the visitor, they can be discussed as interactive because they create environments which envelop the visitor, making him or her a part of the work. Cornwell explains that interactivity requires a "world" in which to interact, where the "'I' is in a context; there is always a world within which there is interaction" (219).

Given the era's interest in participatory art, it is no surprise that 40 pavilions at Expo 67 exhibited widescreen or multiscreen films (Rosein 20). John Belton explains in *Widescreen Cinema* that such films are often promoted as a venue for "active" spectatorship, promising that the viewer will not sit passively as in the conventional cinema, but rather become somehow involved in the action of the film. Such films present themselves as a superior alternative to the passive viewing position, thus conflating

immersion, interactivity and agency. Huhtamo explains that the equation of immersion and activity is promoted by "optimistic McLuhanites" and people who market immersive media in an attempt to capitalise on their product's difference from traditional cinema (Huhtamo 165). The discourse of active viewing was certainly in play in the media coverage of *Labyrinth:*

> Viewers do not remain passively seated as they do in conventional motion picture theatres. They move from chamber to chamber in the complex building, encountering new lands, people, situations, and...also themselves ("Labyrinth" 548).

> Total involvement was never so total; your senses are bombarded! You see happenings happening! (Siskind 1967a, 4).

In "From Participation to Interaction: Toward the Origins of Interactive Art," Soke Dinkla clarifies that while participation gives a sense of agency and empowerment to the visitor, it does not necessarily entail less authorial control or more responsibility for the participant, but rather "participation is located along a fragile border between emancipatory act and manipulation" (283). Dinkla suggests that rather than providing liberation from the control of the artist, the participatory work simply uses the participants as material. This is arguably the case in

Labyrinth, where the progression of the narrative and the cohesion of the work are dependent on the presence and movement of the visitors. The connections between the chambers and their images are forged through their impact on the visitors. Without their procession from one stage to the next, and the movement of their eyes from screen to screen, *Labyrinth* is unable to signify. The visitor has a crucial role in *Labyrinth*, for as demonstrated here, participatory works require the presence of individuals in order to be complete.

> *Labyrinth*'s audiences are no longer merely movie-watchers but movie*goers* in the literal sense - all part of a master plan to make 'involvement' as inescapable as it was for the legendary Theseus (Weiss, 51).

This comment points to the extreme focus on the individual as an agent within the work. The pavilion's sub-theme is "Man the Hero," and it seems that each visitor is "inescapably" required to take on a "heroic" position and thereby take part in *Labyrinth*'s narrative structure. This notion of involvement was polemicised by Abel Gance in his early theorising on multi-image cinema. Gance was a French film innovator, who in 1927 directed *Napoleon*, the first feature-length multiscreen film. *Napoleon* employed Gance's triple-screen

Polyvision process, devised in 1926 (Kaplan 45). In a letter written in 1924, Gance explains that if cinema is to progress as an art, the audience must move from a spectatorial position to an actor position, promising that "I can make all my audiences *participate* literally in my dramas" (King, 89). Gance's writings on film would have been familiar to Kroitor, Low, Thompson, and other artists in the 1960s. As in Gance's 1920s vision, *Labyrinth* sought to be an antidote to "cinema as opiate" and to enforce a sensation of active participation (Low, 1998).

Multi-image/Multimedia

Labyrinth is generally discussed as a cinematic work, but it actually constitutes a multimedia or hybrid form incorporating architecture, music, voice-over, sound effects, sculpture, and even the surrounding landscape. In order to theorize *Labyrinth*'s hybridity, I will employ Rosalind Krauss' discussion of another hybrid form, video art. In her essay "Video: The Aesthetics of Narcissism," Krauss explains that video is a hybrid of a number of media and representational systems, including cinema, television, sculpture, and both high and low art.

Therefore, regardless of a video work's specific content and configuration, its hybridity will always be the primary factor in its signifying functions, in that it will always force the viewer to try to locate the work within a shifting web of pre-existing media.[5] In *Labyrinth,* the unusual spatial arrangement of the films plays off the viewers' prior experiences of cinema, and thus requires the presence of individuals who are familiar with the codes of conventional film viewing. Much in the way that *Labyrinth* thrills its visitors by literally turning cinema on its head, and thus questioning the normalised conventions of cinema projection and spectatorship, video art finds its dynamism by challenging the viewer to reconcile conflicting behavioural codes of art appreciation.

Krauss argues that an approach to video art based entirely on its characteristics as a medium is somewhat limited, because it is by definition non-discrete, so "defining it in terms of its machinery does not seem to coincide with accuracy" (180). Video art incorporates characteristics of many media (film, television,

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[5]Note that Krauss' theory of video art is based on video installations in the gallery setting, and does not necessarily extend to other applications of the video medium.

sculpture) and therefore if one is to develop a theoretical model that will illuminate video works, critical attention must be transferred onto the spectator and his or her psychological response to the work. This approach is also useful in the analysis of *Labyrinth*, where a critical model that isolates the specificities of each medium involved would result in a highly fragmented set of conclusions that would not reflect the sophisticated interaction of media in the work and would neglect the vital position of the visitor.

The significance of visitors' psychological engagements with multimedia and immersive works is further exemplified in cases of electronic art installations. Although they have existed in the current understanding for decades now, many gallery visitors are still uncomfortable with installation works. In fact, with almost all interactive art, many visitors are not sure how to interact, and therefore feel very self-conscious in the presence of the work.

This discomfort arises from the lack of stable rules of spectatorship and engagement. For example, when watching a film at the local cineplex, viewers conform to a set of behavioural codes: they sit still,

in darkness, watch the film from beginning to end, and remain silent throughout. Meanwhile, a television viewer would feel comfortable watching a program in fragments, in a well-lit living room, while talking to fellow viewers. When presented with a hybrid form like video, a spectator may be uncertain of which set of conventions to follow. Is one required to watch a video piece from beginning to end as in the case of film, or is a brief glance appropriate, as in television viewing? In the case of *Labyrinth*, some visitors reported confusion as to "where to look," since the multiscreen projection made the conventional fixed, sustained gaze of cinematic viewing impractical. In Chamber I, for example, the visitors were obliged to stand rather than sit, and were distributed around the room in such a way that they were reminded of each other's presence and could observe other visitors' reactions. By destabilising spectatorial rules and denaturalizing the conventions of traditional cinema, *Labyrinth* directs the visitors' attention toward their own behaviours. Thus, *Labyrinth* encourages its visitors to think about themselves, and although a large group of people are inside the pavilion, the

experience of being "one of many" is accompanied by enhanced introspection.

The visitor's bodily experience is an important factor in the elaborate discourse on spectatorial position in *Labyrinth,* and we might understand this concern within the history of widescreen and multiscreen cinema, and corresponding notions of spectacle and immersion. Belton explains that the rise of widescreen technology in the 1950s promoted the idea of audience participation through "heightened physiological stimulation" (182). Such stimulation often took the form of "ride" films, where, for example, a widescreen image filmed from a roller-coaster would create the illusion of movement and provide the audience with visceral shocks by virtue of suggestion. Again, such theme park attractions allow an exploration of the "psychophysics" of our relationship with machines, where the body is at once coupled with the machine and immersed in it (Huhtamo 165). The physiological impact of *Labyrinth* was so intense that some Expo officials requested that it be toned down to prevent disaster - they were seriously alarmed at the possibility of heart attacks, nervous breakdowns, and even suicides among the spectators

(Reiter 51). Luckily, the only casualties at *Labyrinth* were a purse and a set of false teeth, which fell onto the horizontal screen in Chamber I.

Huhtamo discusses how immersion is often described as an "out of body" experience, drawing attention to the question of the dualistic mind/body split (162). In his analysis of motion simulator rides, Huhtamo explains that they construct a dialectic of simultaneous dematerialization of the body and a "centering of its physicality as the main locus of pleasure production" (167). *Labyrinth* visitors reported feelings of disembodiment, of "floating" or other physical sensations, particularly in Chamber I and the Maze. By creating a variety of physical sensations, the pavilion at once enhances the sense of detachment from the physical as one is "processed" through the machine, while re-asserting the body as the site of lived experience. The centrality of the body is compatible with Elder's vision, as expressed in "The Cinema We Need", of a rhythmic cinema that incorporates bodily experience, connecting the body to "patterns inherent in emergent events" (1988, 269). We might elaborate further that the desire to represent rhythm in "emergent" events was part of Unit B's mandate,

suggesting a long-standing concern with the powers of rhythm that grew to include visceral sensation.

Narrative Construction

Labyrinth's status as a multimedia, visitor-centred work requires that it use a complex system of narrative construction. Large-scale immersive works easily provide a "level of visual spectacle that often threaten[s] to overwhelm the narrative" (Belton 194). Therefore, new strategies need to be developed if such systems are to use a narrative structure. In the case of *Labyrinth,* the narrative progression happens both within the visitor and as a consequence of the visitor's presence. On one level, the narrative of *Labyrinth* is highly controlled and linear; the visitors are processed through a "sausage machine" under the control of the "master programmer" and every element of stimulus is predetermined. On another level, the narrative is allegorical and open to interpretation. Rather than employ conventional story-telling strategies, the film-makers construct a sequence of symbolic documentary images which each visitor interprets privately. The spectacle relies on the visitor's progression from one location to the next,

but at the same time, the assumption is that the narrative will play out within the psyche of each visitor. It is interesting to note that some visitors assumed that they would encounter a "real" beast within *Labyrinth*, and that they would find themselves active agents in a theatrical narrative.

We can relate the notion of *Labyrinth*'s signification as dependent on the presence of the viewer to Elder's stipulation that the cinema we need is one that will "literally enact the process of its own emergence into being" (1988, 269). *Labyrinth* does indeed come into being as its signifying functions are enacted by the visitor. In addition, the necessity of the visitor's presence ensures that *Labyrinth* meets another of Elder's criteria, that of a cinema that locates us in the present.

Labyrinth's association with mythological and archetypal narratives and concepts attempts to excise it from history, to make its narrative not one of "the past" but of an ever-present set of cultural concepts. The fact that the visitor is an integral ingredient of the narrative progression locates the text in the present, as *Labyrinth* literally unfolds only as its visitors process through it. This interpretation of

Labyrinth is supported by its theoretical associations with video art and multimedia, both of which are often contingent on the presence and response of their viewers, thus locating the work in a perpetual present.

CHAPTER III: Elder and the Canadian Centennial Sensibility

As the theoretical foundation for my analysis of *Labyrinth*, I will employ Bruce Elder's "manifesto" of Canadian film entitled "The Cinema We Need", an essay published in 1985 in *The Canadian Forum*. Elder's comments are of interest because although they were published eighteen years after Expo, the ideal Canadian cinema he describes bears uncanny parallels to the aesthetic character of *Labyrinth*. I do not suggest a direct historical link between *Labyrinth* and Elder's essay, except to say that Elder's understanding of cinema in Canada and his priorities as to the advancement of film culture are in evidence in the pavilion. I use Elder's manifesto in part as an organising principle, but also as a framework that facilitates a discussion of *Labyrinth* within Canadian traditions of art and landscape.

While I cannot argue that every point of Elder's vision is realised in *Labyrinth*, Elder's description of the cinema we need addresses *Labyrinth*'s formal, thematic, and historical characteristics. Elder claims that we require a cinema of the present, and therefore

narrative is problematic because it necessarily implies an already established ending, one that was established in the past. Further, Elder explains that we need a cinema of perception rather than of ideas, since ideas are located in the past, while perception is located in the here and now. Such a cinema must "literally enact the process of its own emergence into being" (1988, 269), and as we will see, *Labyrinth* approaches this ideal through its status as an immersive work whose narrative progression is dependent on the immediate presence of the viewer.

In calling for a cinema based in immediate experiences, Elder specifies that such a cinema must integrate all elements of experience rather than separate them into discrete units. Elder's vision is of a "polyphonic" cinema, one that incorporates the variety of sensory and bodily experiences into a rhythmic art form that fosters multiplicity and ambiguity. The notions of polyphony, multiplicity, and rhythm are clearly manifest in *Labyrinth*'s formal and thematic structure, and may be connected with its status as a multi-image work and its position in Canadian traditions of art and thought.

Technologies of Perception

When Elder insists that we need a cinema of perception rather than imagination, he explains that a cinema based on perception will integrate the diverse components of experience, rather than separate them into discrete categories (1988, 267). Frye pointed out that the purpose of the *Labyrinth* experience should be to cease processes of externalisation, to use ritual to re-awaken our understanding of the connectedness and integration of experience (Daly, 1964). *Labyrinth*'s signifying functions depend largely on the filmmakers' understanding of perception, and their cinematic philosophy, developed through Unit B, of seeking to create rhythmic and integrated works.

In his report on innovations in multiscreen technology in the March 1968 *Society of Motion Picture and Television Engineers Journal* (SMPTE), Colin Low refers to Sergei Eisenstein's vision of the "dynamic square," a screen which could change shape according to the requirements of the image (Low 1968, 185). Eisenstein's theoretical works on cinema advocate not only flexibility of format but also the synchronisation of multiple image and sound-tracks. In his essay entitled "The Synchronization of Senses", written at a

time when Soviet filmmakers were grappling with the implications of sound film, Eisenstein develops the idea of "vertical montage" as a model for the relationship between sound and image. He describes vertical montage by comparing it to an orchestral score, where the parts for each instrument proceed horizontally, while the vertical relationship between the staffs links the separate parts into a musical whole (Eisenstein 74). Eisenstein concluded that the simultaneous presentation of numerous tracks, such as image and sound, should create a similar vertical dynamic. A multiscreen format extends this dynamic in that it privileges sustained, simultaneous presentation of multiple images over the sequential montage of conventional cinema.

Careful analysis of the viewer's potential response to multiscreen editing, montage, and "dynamic square" manipulation was a central factor in the planning of *Labyrinth* and the contemporary literature on multiscreen techniques. It is interesting to note how creators of wide- and multiscreen cinema tend to exhibit intense concern with the perceptual powers of the human eye and ear. Gance, Kroitor, Low, and Donald Brittain, director of the first IMAX film, were all

intent on creating images of such a size that they would cover the whole surface of the retina, thus using the full capabilities of the eye. In addition, the rhythms of multi-image projections are determined in part by the eye's capacity to move and to take in information.

Multiscreen filmmakers often perform experiments in order to discern how viewers perceive multiple images. For example, they discovered that in a one-minute sequence of "four simultaneous images, no more than twelve scene changes...could be identified satisfactorily" (Howard VIII). Tom Daly, the editor of *Labyrinth*, established a number of editing rules for the multiscreen format that would allow him to exploit its potential without overwhelming the audience. For example, he discovered that a viewer's attention is attracted by change, and therefore he could direct the viewer's eyes "by the order in which material appeared" (Shatnoff 9).

Low's reference to the vertical montage model acknowledges the importance of sound in *Labyrinth*. *Labyrinth* was a site-specific work, and as studio facilities could scarcely anticipate the acoustics of the building or the unconventional arrangement of the

screens, the filmmakers completed the final recording and editing of music and soundtracks on site, and they constructed a specialised mixing console for this purpose ("Labyrinthe" 15). Bosley Crowther, a *New York Times* film critic, attested to the sophistication of the *Labyrinth* sound system, and claimed that at times it "may even take over entirely the sensory authority of a scene" (1967a, 1). This was most apparent in the Maze, where a sophisticated system of speakers created the sensation of "moving" sound, contributing to the visitor's disorientation. In addition, the lighting system in the Maze was controlled by auditory triggers, so the visual sensations would follow the variations in music and sound effects, thus inverting the commonly perceived sound/image hierarchy of the cinematic experience.

Colin Low explains further that the creators of *Labyrinth* developed various techniques to avoid "optical indigestion," a common side-effect of multiscreen presentations. One of the techniques developed to guide the viewers' experience was the use of sound to direct attention from one image to another. "The judicious use of multi-channel sound...has the effect of preventing confusion between competing

images" ("Labyrinthe" 17). The producers achieved this by using the speakers behind the screens or "movements" in surround-sound which encouraged the eye to follow a certain path from screen to screen. Arthur Rosein explains that in Chamber I, the combination of sound and image created an effect that was "nearly three-dimensional" (95). A consequence of the sophisticated sound system is that it somewhat reduced the sense of "not knowing where to look." This point reinforces our understanding of the filmmakers' concern with the limitations of human perception, and the power of sound to direct and focus attention in an immersive system.

In his discussion of experimental cinema of the 1960s in *Expanded Cinema*, Youngblood coins the term "synaesthetic cinema" to describe a form that is cinematic in its own right, freed from the overbearing traditions of theatre and literature. Synaesthesia is the condition where the distinctions between sensory inputs become blurred. Youngblood claims that these cinematic practices constitute the formation of a new aesthetic language (81). A synaesthetic cinematic language is particularly well suited "to the post-industrial, post-literate, man-made environment with its multi-dimensional simulsensory network of

information sources" (Youngblood 77). Although Youngblood's grandiose tone might appear to overstate the case, these issues of communication, media, and cinematic language are significant. Kroitor anticipated that a new "language" would be created in *Labyrinth* and in the trend in film art he hoped it would establish. This language would develop via the close relationship between "the movie and the architecture in which it is housed" (Youngblood 354). Such a synaesthetic combination of multiple levels of sensory perception is evident in *Labyrinth*'s vertical arrangement of stimuli, where any number of sensory "tracks" might develop a correspondence. Indeed, an event such as a World's Fair may be interpreted as a large synaesthetic text, where multiple expressions of culture and technology, from architecture to music to the flavour of a Belgian waffle combine to make for a language able to express the "sum" of contemporary civilization.[5] Therefore, a discussion of *Labyrinth* must address its position within the World's Fair

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[5]This is not to say that a World's Fair does in fact "sum up" human civilization, but it certainly presents itself as an exposition of all that is supposedly good and powerful in contemporary human "progress."

"text", a position that is necessarily related to Expo 67's status as a Canadian centennial celebration.

Expo 67 was the most spectacular of Canada's centennial projects. Promotional materials for the exposition proclaimed that after 100 years, Canada had come of age as a nation, and that the World's Fair would announce this country's new maturity on the world stage. A pamphlet entitled "What is Expo '67?" explains that the Exhibition

> will significantly reflect the coming-of-age of Canada. It will contribute to mutual understanding throughout the world by bringing the nations of the world together - culturally and economically (1966, 1).

Expo organisers were faced with the challenge of creating a coherent expression of Canada's new mature identity, and did so by avidly promoting notions of Canada as a nation defined in terms of spatial relations and multiplicity. Issues of space were expressed through emphasis on Canadian landscape, natural beauty, and regional variety, while Canada itself was presented as a nation of multiple linguistic and ethnic origins. Expo operated under "the discourse of the United Nations", presaging the ideas of multiculturalism and multinationalism that would characterise Trudeau's rhetoric into the 1970s (Wilson

165). Indeed, one cannot overstate the importance of Expo 67 as a watershed event in Canadian culture - Canada had never hosted an international event of this calibre.

In order to explain *Labyrinth*'s status as a Canadian work, at Expo 67 and beyond, it is vital that we understand it as operating on a dynamic between spatiality and multiplicity. *Labyrinth* addressed issues of space in its representations of landscape, in its location on the Expo site, in its status as a film/architecture hybrid, and in the ways it made the visitor acutely aware of his or her bodily relation to the building, the films, and the narrative progression of the experience. With these spatial energies in play, *Labyrinth* expressed multiplicity by its use of montage, its dialectic between individualised and collective narratives, and its evocation of contemporary notions of ethnic and geographic diversity.

Grid, Frame, Nation

The perceptual capacities of the individual visitor were a primary consideration in the design and execution of *Labyrinth*, and are directly related to

Labyrinth's multi-image mode of signification. As I have explained, the first point of Elder's manifesto is that Canada needs a cinema where perception is of upmost concern. In order to understand how perception relates to Canadian conceptions of spatiality and multiplicity, we must draw attention to the configuration of *Labyrinth*'s multiple screens. While the screen configuration in Chamber I subverted conventional viewing positions (from a physical standpoint), and created visceral sensations beyond the conventional ride film, Chamber III's screens posed more difficult theoretical questions.

The five screens in Chamber III were all positioned in the same plane, but they remained identifiable as five separate forms rather than a smooth cross-shaped screen. Even large images that took up all five screens were partitioned by the gaps between the panels, re-defining the "organic whole" of the cinema image as a system of montage. Thus unities were fragmented while fragments became unities; an idea that had particular resonance with Expo's project of Canadian nation-building. The screens were arranged in a cruciform pattern, and their outlines formed a grid. As the films were projected, not all the screens were

necessarily used at all times. Sometimes only one of the five screens would bear a projection, while the others were dark. This variable use of screens was derived from Eisenstein's vision of the "plastic square", as I have mentioned. The screen space literally changed shape throughout the film, sometimes forming one long horizontal screen, sometimes a vertical tower, etc.

The fact that the Chamber III screens formed a grid is of interest, as this form had a privileged position in modernist art and an historical connection to the scientific study of perception. In her discussion of the semiotics of the grid, Rosalind Krauss relates it to the nineteenth-century fascination with the physiology of optics, explaining that "for the artist who wished to enlarge his understanding of vision in the direction of science, the grid was there as a matrix of knowledge" (Krauss 1985, 15). This matrix would allow insight into the mechanics of visual perception, in an era where "vision, rather than a privileged form of knowing, becomes itself an object of knowledge, of observation" (Crary 70).

The grid has had tremendous currency as a device for analysing and representing natural phenomena. In

his discussion of grids in Modern painting, John Elderfield notes how graph paper was invented in the early 1800s, at the same time as other forms of mechanical reproduction (Elderfield 54). Consider Muybridge's use of grid backgrounds in his proto-cinematic photographic analyses of human and animal movement. The grid's heritage as a tool for the interrogation of the eye was an important factor in *Labyrinth*'s project, which was concerned with issues of perception as a physiological phenomenon and its relation to the conventions of cinematic signification.

Elderfield's discussion of grids in modern painting distinguishes grids that operate as structures from those that are frameworks. In cases where a grid forms a painting's structure, the grid itself is the image; it is the object on display rather than servicing "other pictorial components" (Elderfield 53). Meanwhile, as a framework, the grid provides a scaffolding "to be departed from" (53). *Labyrinth*'s grid may be understood as both framework and structure, in that the grid pattern of the screens in Chamber III facilitated the creation of multi-screen dynamics, but it also had a representational role in that the screen shape was a reference to the Tree of Life. Furthermore,

it is naïve to suggest that a cross-shaped installation is without religious coding when it appears in Western art.

Roman Kroitor explains that a multiscreen format reveals "ways in which shaping the relationships of images cuts through the superficial realities and reaches for something deeper", which is in concert with the notion of montage as a process which has a transformative effect on its images (Youngblood 354). In his discussion of montage in *Expanded Cinema*, Gene Youngblood suggests that "when the 'content' of the message is the relationship between its parts, and when structure and content are synonymous, all elements are equally significant" (Youngblood 85). At the time, several critics complained that the images of *Labyrinth*, although competently produced, were themselves banal (Fulford 1967a, 24). However, their interaction made for a powerful aesthetic experience, expressive of *Labyrinth*'s modernist project "characterised by the collision of fragmentary, discontinuous sensations" into a multiscreen/multimedia text (Eagleton 63). In *Labyrinth*, the dynamic of vertical montage was possible because the screens, although arranged together in a careful composition,

remained discrete entities. It was the role of the spectator to fill in the blanks between the screens, and it was in these blank spaces where the real "action" of *Labyrinth* was played out.

The diegetic connections between the events on the screens made for a radically expanded cinematic experience. Kroitor even goes so far as to suggest that multi-screen cinema constitutes a "new medium" (1998). In Chamber I, for example, a boxer appears to fall from the vertical screen onto the horizontal one; a little girl throws a piece of bread from the vertical to the horizontal image of a pond, where a fish eats the crumbs as they hit the surface.[7] Visitors were enthralled by these inter-screen events, even ascribing

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[7]Accounts of this particular image relationship, with the child throwing an object into a pool, provide an excellent example of the role of individualised perception and the volatility of cinematic memory. In my research, I have encountered numerous accounts of this inter-screen event in media reports, interviews, and casual conversations with people who visited Labyrinth, and each account is quite different. Some viewers saw a piece of bread and a fish, others saw a pebble, some saw a girl throw the object, others a boy. Similarly, some spectators' descriptions of the falling boxer include an image of the victorious boxer standing over him, when in fact, the image at this point in the film is of a victorious racecar driver. It is notoriously easy to misremember film images, but these anecdotes indicate the degree to which viewers do indeed "fill in the blanks" of visual experience, constructing images and events that are not really there.

a three dimensional quality to the film because of the perceived flow of diegetic objects from one screen space to another. This phenomenon is related to the work's reflexivity as a film, specifically the phenomenon of persistence of vision, the basis of cinematic perception: a film viewer perceives a sequence of still images as moving because the eye retains the image longer that it is shown. The brain collates these images into a totality which it perceives as movement. This process was drawn into focus as the *Labyrinth* visitor perceived movement not only on the screen, but through the void between the screens. Thus Chamber I both exploited and denaturalized the perceptual basis of cinema viewing.

The grid allows "the separation of the perceptual screen from that of the 'real' world" (Krauss 1985, 15). By isolating the perceptual, the grid allows for a cinema of perception, one which locates the cinematic experience explicitly in the embodied senses of the viewer. This is in concert with the idea of bodily engagement with the pavilion space explained earlier, and further enforces the connection with Elder's vision of Canadian cinema as an embodied experience. Further, the arrangement of the screens in a grid allows for

inter-screen movement (or at least the perception thereof) and allows the frames to serve a "diacritical" function that Elder describes as fundamental to the Canadian avant-garde and Canadian traditions of representation (Elder 1989, 261). For example, Elder explains how in the work of Joyce Wieland, the frame partitions units, then creates new relations among them, which is exactly how *Labyrinth* exploited its montage potential.

Issues of framing are directly related to traditions of landscape imagery in Canadian art. By making the viewer aware of spatial concerns, *Labyrinth* re-enacted the drama of the Canadian relationship with landscape and Canada's extraordinary geographical characteristics. This was a particularly fitting project at the nation's one hundredth birthday, when Canadians paused to ask "Who are we?", or as Northrop Frye put the question in the first edition of the "Conclusion to a *Literary History of Canada,*" "Where is here?" (Frye 1965, 220).

The Expo theme of "Man and His World" was interpreted specifically in terms of man's location in his environment:

> ...the Expo theme will exploit three main avenues deriving from a concept which locates man

> in his environment. Categorised broadly, it will encompass:
> - How man's environment affects him.
> - How man changes and improves his environment to realize his aspirations.
> - How, in turn, he is influenced by his new achievements.
>
> *(What is Expo '67?, 10)*

This mandate to explore "Man and His World" in these terms was linked with the notions of technological "progress" and mastery over nature that are typical of World's Fairs; however, at Expo 67, the first priority was to examine "How man's environment affects him", and there was particular emphasis on nature and landscape as key forces in the Canadian sensibility. Thus, discovery of identity is inextricable from relationship with landscape, a relationship that *Labyrinth* addressed on a variety of levels.

Labyrinth employed a considerable amount of landscape imagery, explicitly encouraging its viewers to incorporate a spiritualised admiration of natural beauty into their quest for self-discovery. The images included the Alberta ranch where Colin Low lived as a boy, the Greek coastline, the Ethiopian desert, and a Montreal cityscape. The location and design of the pavilion ensured that when visitors exited, their first view of the outside world was a "commanding vista of

the river" as opposed to a hot dog stand or some other unnatural phenomenon (Vineberg 1965, 35). Thus, the St. Laurence itself became a part of *Labyrinth*'s landscape imagery.

Other Canadian films at Expo were structured as "virtual tours" of the Canadian landscape. For example, in the "Man and the Polar Regions" pavilion, which focused on life in the Arctic, a wall of screens showing northern landscapes rotating around the audience. The much loved *Canada '67: Circle-Vision 360°* at the Telephone pavilion featured a 360-degree screen whose images were compared with the view from a glass-domed observation car "zooming over Canada land and sea, zipping around street corners, flying, dipping down for a view of the Canadian Rockies or Niagara Falls" (Shatnoff 2). This film also integrated easily recognised Canadian iconography, such as the RCMP Musical Ride, into its landscape narrative, before concluding with a performance of "O Canada."[3]

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[3]In a comic moment in a documentary entitled *The Canadian Pavilion, Expo 67* (Marc Beaudet, 1967), the narrator announces "And here are the tourists. We can't let them down. There are certain types of pictures they just have to take home", while we see tourists lining up to take photographs of a Mountie on a horse.

While *Labyrinth* did not partake in such intense pro-Canada boosterism, it is relevant to note that many of its shots were taken from trains, aeroplanes, or speeding cars, again emphasising movement through space and the Canadian heritage of rail travel as a way of knowing and claiming the landscape. Harold Innis understood the frequent presence of transportation imagery in Canadian art as an expression of "consciousness that sees human presence in the landscape not as an implacement within nature but as a passage through space" (Testa 51). As one travels by train, one is never truly a part of the landscape, but part of a network of communications laid over it, so one's sense of location is constantly shifting. This is certainly the case in *Labyrinth*, where the visitor's experience as a spectator and a narrative catalyst was often one of uncertainty, ambiguity, and surprise.

Given the ambiguous and often dangerous relationship between Canadians and their landscape, it is no surprise that in Canadian landscape art, the frame attempts to place "manageable dimensions" on seemingly boundless and overpowering natural spaces (Elder 1989, 261). And yet, there is an understanding that no such attempt can be entirely successful, and

the wilderness retains its intimidating status. This creates a tension that dynamises Canadian landscape art: the conflict between the frame as container and as excluder. This is in direct conflict with the modernist notion of the frame as something that "utterly isolates the space within it from the space that surrounds it," thus eliminating the source of tension (261). In *Labyrinth*, attempts to represent panoramic landscapes, such as horses running through the mountains of Alberta, or the scene from a train in the Greek countryside, were still seen through the pattern of the grid, emphasising the impossibility of secure containment. *Labyrinth's* core dynamic of inter-frame tension was made emphatic by the presence of the grid. The visitor was at once in awe of the powerful images, and yet more in awe of the imperceptible referent behind them. Thus, *Labyrinth*'s mode of representation remained on the limits of perception. This was very much the intention of the filmmakers, who ensured that it was impossible for a single viewer to see everything at once, and that the perceptive capacities of the eye were pushed to their limits. For example, Chamber III's screens were arranged in such a

fashion that they surpass the perceptual capacities of the human retina (Low, 1998).

Again, this concern with the limits of human perception is of tremendous importance. As noted in the initial description of *Labyrinth*, the pavilion was designed in such a way that it would ensure feelings of vertigo, or other visual, auditory, and visceral sensations. This intense concern with the viewer's experience is compatible with Elder's desire for a cinema that does not needlessly fragment experience, and that incorporates the whole person.[3] *Labyrinth*, in its connections with the heritage of everything from the thrill ride to the Canadian documentary tradition, attempted to engage the visitor physically, intellectually, and spiritually; a level of engagement that is necessary for any type of personal transformation.

The desire to expand the viewer's personhood through a greater understanding of perception has its roots in the historical origins of multiscreen cinema. Through his theoretical writings and lectures, Abel Gance explains the import of multiscreen imagery as a

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[3]This effort to address the "whole person" was also a priority in Unit B productions.

radical departure from conventional film spectatorship. His concerns with the physiology of perception, audience involvement, and the development of cinema as a spatial medium are closely paralleled in *Labyrinth*. Gance's intention in creating multiscreen works was to transform the perceptive experience of the viewer, asking in a 1929 lecture "how can a way of seeing go beyond the organ on which it depends?" (King 64) and challenging filmmakers to break out of the "prison" of the eye through the use of multiple images which might better represent the workings of the human mind and the plurality of consciousness (King 71). His understanding of the powers of multiscreen montage was expressed in scientific terms, as though the full psychic impact of a film could be calculated through the science of perception:

> The emotional impact of simultaneous horizontal montage can be equal to the square of that produced by alternating images in the usual form of montage (King 80).[13]

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[13]Gance discusses montage as "horizontal," but this is not necessarily in contradiction with Eisenstein's "vertical" montage. Gance's use of this term is most likely related to the horizontal positioning of the screens in *Polyvision*. Eisenstein's idea of a symphonic relationship between multiple tracks of images is echoed in Gance's belief in the power of multiple images to create a "visual orchestra" (King 72).

Gance believed that through multiscreen film, he could expand perceptual powers and thereby "broaden considerably the field of our spiritual vision" (King 72). This understanding of the power of multiscreen's impact on perception as a key to spiritual enlightenment is significant in a discussion of *Labyrinth,* both in terms of its stated project of self-discovery, and in the spiritualised response to perception of landscape that is integral to Canadian art.

In a brief special-effects sequence in Chamber I, the camera took the point of view of a spaceship rising above the lunar horizon, looking back at the planet Earth. This image was produced before the first lunar landing in 1969, but nonetheless, photographs of the Earth taken from space, particularly those that show the Earth as a whole, played a crucial role in the way people conceptualised "Man and His World".

> The struggle over the meaning of land in contemporary culture can be illustrated by a single, widely circulated image from Expo 67: the image of the Earth as seen from space. For the first time, our visual environment allowed us to imagine the planet as a single organism (Wilson 167).

This image had great currency at Expo itself, and was clearly reflected in the emblematic geodesic dome that housed the USA pavilion, but its appearance in *Labyrinth* goes beyond trend or novelty. This image states the universality of the film's message, and presents the idea of a global human family as the premise of its discourse. One might even argue that this space-age image literalises the concepts of spatiality and multiplicity at the core of *Labyrinth* and Expo 67: the sum of human civilization is located in the spatial phenomenon of "the planet", one that functions as the cohesive principle that grounds the variety of creation. A draft for the unused *Labyrinth* promotional pamphlet explains that the film was made to foster a better understanding of "this planet earth in the year 1967", a comment based in the recently realised notion of humanity as a planetary phenomenon.

Language and Narration

Elder wishes to encourage a cinema that incorporates multiplicity and is able to accept the ambiguity and contradiction that are part of actual experience. The dialectical, or diacritical notions of montage, framing, and perception correspond to this

idea. A significant, though sparingly used effect that expresses multiplicity is the voice-over that accompanied the visitors' transition from one chamber to the next. The phrases themselves were somewhat clichéd and didactic, such as "The hardest place to look is inside yourself, but that is where you will find the beast, blocking your path to other men. Conquer it and you can truly join the world." or "Just when you think you have it all, it starts to slip away" (Fulford 1967b, 29). However, they are interesting because of their relationship to Canadian language politics. The voice-over was in both English and French, but the two language-tracks were not translations of one another. The French and English phrases, written and performed by Donald Brittain and Claude Jutra, respectively, were autonomous discourses. (Appendix A)

The use of two simultaneous language tracks raises many questions about language in Canadian art and culture which are too complex to fully address here, but this montage of linguistic tracks may be understood on a preliminary level as a recognition of French and English as distinct modes of expression not subject to translation, much in the way that the image tracks

present multiple perspectives that are at once a single text and multiple texts.

Low suggests that in hindsight, the voice-over was not really necessary as an aid to audience comprehension, since the images are themselves self-explanatory (1998). However, it remains that the charged relationship between the languages constitute a synaesthetic dynamic, where the interplay of languages reflects and contributes to the already complex multimedia structure of *Labyrinth*.

Several critics described the *Labyrinth* experience as primarily emotional, to the exclusion of intellectual interpretation. "Visceral and sensual, rather than intellectual, are most of the stimulations offered on these unconventional screens" (Gilmour np). "You will not be pressured into thinking" (Siskind 1967b, np). This suppression of intellectual engagement does not contradict the previous arguments about the visitor's contemplation as to their position as spectator, as it is concerned more with interpretation of the "message" of *Labyrinth* rather than its status as a multimedia work. Kroitor is vague about the meaning of *Labyrinth*, except to say that it is the role of each visitor to come up with his or her

own interpretation. Robert Fulford noted that "Most people...don't understand the film in any rational way" and are unable to articulate their feelings about it (Fulford 1967b, 29). The derivation of meaning from the work is thus rendered in part an internal process. This internalising of meaning production is relevant in *Labyrinth*'s narrative multiplicity. The visitor is "the hero" both in terms of the grand narrative of Western civilization, and in terms of their personal development, and thus the narrative of *Labyrinth* is both internal and external, and therefore as varied as the visitors who process through it.

In a 1966 interview with Wendy Michener, Roman Kroitor explained that the emphasis on the spectator as an individualised agent within the work is an intended consequence of *Labyrinth*'s design, where "each member of the audience...is the hero. They'll feel a common humanity with the people they see on the screens and they'll say, this is my life, this is what I feel, what I'm afraid of, what I hope for, what I want" (Michener 57). The visitor experiences *Labyrinth*, but also becomes its subject. Frye insisted that the hero figure not be presented as "other" to the spectators, but rather that they identify their own mysteries and

challenges with that of the archetypal hero (Daly, 1964). Kroitor also suggests that *Labyrinth* charted the life-path of a "universal" individual. This idea of a universal individual is interesting in the context of a World's Fair, which can be understood both as an exposition of international difference, and as a large multimedia text, where the world is condensed and unified in a single spatial/temporal construction.

The idea of the universal individual is very important in the history of documentary photography and film, particularly in relation to multiscreen cinema. Colin Low cites the *Family of Man* photography exhibit, which appeared at the Museum of Modern Art in New York in 1955 as one of many sources of inspiration for *Labyrinth* (1998).[11] This is relevant in terms of the representation of geographical and ethnic variety which, to this day, is consistently a priority in Expo movies, particularly in multiscreen presentations. The *Family of Man* exhibit heralded itself as a mirror of humanity, showing through graphic matches the

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[11] I do not wish to overstate the case in terms of *Family of Man's* impact on *Labyrinth*; however, this type of photography, and the world view it represents, were key to the aesthetic character of the images and were significant in the filmmakers' storyboard decisions.

interconnectedness of humanity into one globalised family, the Family of Man.

The photographs were of people from all over the world, and in many cases they were arranged according to their similarities in terms of figures and pose. For example, one series of photographs compared different groups of people holding hands in a circle, while another showed several family group photographs from around the world. The process of viewing these images is meant to be one of self-recognition; one is encouraged to think "I'm not a stranger here" (Sandburg 2), but rather part of a unified humanity. The viewer reaches this conclusion through an explicitly multi-image form of communication. The Prologue to the exhibit catalogue describes the birth of an ideal global individual:

> The first cry of a newborn baby in Chicago or Zamboango, in Amsterdam or Rangoon, has the same pitch and key, each saying "I am! I have come through! I belong! I am a member of the Family!" (Sandburg 2).

This notion of the spectator's revelation of his or her connectedness to a global family was carried over into *Labyrinth*, and was represented in the first images to appear in Chamber I. The opening image was of a nurse pushing aside a hospital curtain to reveal a

newborn baby. She held the baby up to the nursery window so that the family might look at it. This sequence was shot and edited in such a way that the spectator was placed in the position of the baby's family - thus literally positioning the viewer/hero as a member of the "family of man", as explained above. This positioning of the spectator went beyond simple identification with point of view, because more than one baby was pictured in the sequence, thus presenting the narrative as that of the universal individual, rather than the story of a specific infant.

The *Family of Man* exhibit was only one of many photograph collections that influenced the *Labyrinth* filmmakers' choice of images and shooting locations. Kroitor suggests that the filmmakers consulted over a million photo magazines, mostly *Life* or *National Geographic* (Kroitor, 1998). While visual inspiration for *Labyrinth* came from innumerable sources, it is important to consider the semiotic particulars of magazines like *Life*, and their approach to photographic montage and narrative. One should not underestimate the influence of *Life*'s distinctive layout philosophy, based on the "inventive, elastic manufacture and linkage of text and photograph" (Squiers 142).

Life is characterised by its reportage style of photography, but also by its reliance on multi-image communication. While many of the images that define popular memory of twentieth century events appeared first in *Life* magazine, such images tend to be reproduced or exhibited in ways that remove them from their original editorial framework, failing to consider that the "majority of pictures taken for *Life* were made to be seen or used in a multi-image context" (Squiers 141). While it is too ambitious to claim that photo magazines like *Life* alone determined *Labyrinth*'s multi-image character, examples of multi-image photography, whether in gallery installations like *Family of Man* or in contemporary picture stories, suggest a cultural openness to the idea of multi-image communication, and an appreciation of the potential mutations of photographic meaning in a multi-image context.

It is important to remember, however, that idea of the Family of Man has a very problematic heritage, for although it is evoked here as an argument for the equality of all people, its origins are decidedly less egalitarian. In *Imperial Leather: Race, Gender and Sexuality in the Colonial Contest*, Anne McClintock offers a detailed analysis of nineteenth-century

concepts of the "Family of Man" and its origins as a racial hierarchy. She explains how Darwin's *Origin of Species* "bestowed on the global project a decisive dimension - secular time as the agent of a unified world history" (36). Once secular time had replaced Biblical chronology, historical time could be mapped onto nature, and social evolutionists exploited Darwin's theory to develop models of human evolution in order to justify racial, sexual and class hierarchies.

Darwin's use of the branching tree as a model for the divergence of species became a "switchboard image mediating between nature and culture", suggesting an organic momentum underlying human history (McClintock 37). In Francis Thompson's influential *To Be Alive*, multi-screen montage was used to forge "symbolic connections and poetic contingencies, particularly on an interracial, intergeographical basis" (Shatnoff 6). The image of the tree is extremely important, since it is a secularisation of the Tree of Life. This is relevant in a discussion of Expo iconography because it was evoked at Expo 67 both in its advertising and in a key display at the Canadian pavilion. A newspaper advertisement that appeared in *The Montreal Gazette* in

1964 promoted Expo as a "family affair", informing readers that

> Canadians have a new pride and joy. From Victoria to Halifax, Expo '67 is a Canadian family affair. Everybody's baby. Or bébé. And of course there's nothing like good old family pride for adding warmth to a home - and to a celebration. Family pride. *Canadian* family pride. Let's all add our share of it to every busy day of Expo's growing up, and to the great welcome in 1967 when we show our pride and joy to the world.

The Canadian pavilion was called "Katimavik", an Inuit word meaning "meeting place." It was an inverted pyramid filled with masks and technological devices, including an astrolabe, suggesting a dynamic between communication and navigation machines and the struggle to establish identity, as represented by the masks. Beside the pavilion stood an installation entitled "The People of Canada" that was described as a "stylised maple tree...with its leaves formed of hundreds of photographs of Canadians" (National Pavilions at the 1967 World Exhibition, 5). Visitors could walk inside the tree to look at the photographs of faces printed onto red and yellow cloth panels. The tree itself had a roughly spherical shape. A short film entitled *The Canadian Pavilion, Expo 67* notes the resilience of the tree, in that it "won't lose its leaves in the Canadian

winter."[12] The implications of this structure are that the Canadian nation may be represented as a family tree, and that the universal human family is synthesized within that nation, which is in turn represented by the maple tree, an organism that is a defining feature of the Canadian landscape. An Expo pamphlet went so far as to feature a woman with a maple tree and a caption identifying "Canada's natural beauty" - coyly conflating the Canadian body with its natural surroundings.

Meanwhile, in Chamber III of *Labyrinth*, the five-screen configuration evoked the Tree of Life. While it is not likely that there was any conscious collaboration between the *Labyrinth* production team and the designers of Katimavik, it is relevant that both used the image of the tree to represent both Canadians' diversity and their connection to the landscape of this country.

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[12]*The Canadian Pavilion, Expo 67* (Marc Beaudet, 1967) 19 minutes.

Labyrinth's Demise

Many critics argued that the film works at Expo 67 heralded the future of cinematic art, with *Labyrinth* as the prime example of the medium's potential for expansion. Kroitor has speculated that multiscreen cinema could constitute a new art form, one with the potential to afford great creative power to the artist through the use of ever increasing numbers of channels of information (1998). Even those who were more cautious in their praise, indicating that facilities like the *Labyrinth* pavilion would not be financially feasible for the film industry, suggested that *Labyrinth* would change the way cinema would be produced in the future (Crowther 1967a, 1).

Several parties including the NFB, private companies, and the City of Montreal lobbied for *Labyrinth* to continue operation after Expo was over, which attests to its impact and popularity. There were suggestions that new material could be produced specifically for the pavilion's unique projection facilities, which could have placed *Labyrinth* at the forefront of a new form of cinema practice. If the NFB had retained control over the facility, it might also

have overcome its reputation as a "'Sleeping Giant,' a captive of its own utilitarian documentary tradition" (Weiss 51) and become a leader in multiscreen cinema. Also, if the pavilion had proved a profitable attraction, other multiscreen facilities might have been constructed elsewhere in the world, thus establishing an infrastructure for further multiscreen work.

It is also possible that if such an infrastructure had been distributed widely enough, the form would have gradually established its own language of sign formation and spectatorial codes, thus allowing it to move away from its original status as a technological wonder, and fulfil another element of Elder's manifesto, of a medium that allows us to explore types of thought that are not related to mastery and control, as is encouraged by a society obsessed with technique/technology (1988, 262). Tragically, bureaucratic indecision about financial responsibility and conflicts between the City and the federal government made the maintenance of *Labyrinth* impossible. The pavilion was used for several years as a Canada World Youth hostel before it was demolished in favour of condominiums.

In spite of *Labyrinth*'s disappointing demise, it did function as a precursor to technological innovations such as IMAX, which is now well enough established to support a large-screen film production industry. In addition, both the creators of *Labyrinth* and its critics suggested that this work would encourage the creation of immersive systems that incorporate electronic motion pictures (Howard 10). Considering the ever-increasing interest in immersive and interactive media, this prediction proved correct. In the end, we might best appreciate *Labyrinth* as an example of how such media can be used to produce sophisticated art works.

CHAPTER IV: *Labyrinth* and the Origins of IMAX

Although there are technological and historical connections between *Labyrinth* and IMAX, it may seem problematic to view IMAX as an aesthetic descendant of *Labyrinth* as the relevance of montage in the multiscreen work distances it from widescreen technology.[13] Although these developments have roots in the same cinematic and entertainment traditions, the interest in widescreen is based in the ideal of what André Bazin calls the "myth of total cinema," where nineteenth-century notions of realism are the ultimate goal, and the immersion of the spectator is meant to erase any trace of the artist's hand (Bazin 21). Meanwhile, multiscreen imagery announces its constructedness by operating on the gaps between the screens, much in the way that Eisenstein's original theories of montage designate it as a technique to remind the viewer that he or she is watching a film.

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[13]Although IMAX has a clear historical relationship with widescreen film, it makes a departure from its predecessors in that the screen is not only wide, but also extremely tall - the screen appears nearly square when compared with conventional 70mm facilities. This distinction is significant because the shape of the IMAX image requires framing and photographic techniques quite different from standard cinematographic practice.

To date, IMAX is the ultimate in large-screen cinema, presenting a gigantic image that retains the film image's "organic wholeness", while *Labyrinth* remains contrary to that project. However, it is important to note that IMAX was originally envisioned as a multi-image technology.

Japanese planners for Osaka's Expo '70 attended Expo '67 and were so impressed by *Labyrinth* that they asked the production team if they would agree to do a similar project for the Fuji Bank pavilion. Colin Low proposed a triptych of vertical 70mm screens (like the vertical screen in Chamber I). The Japanese architect's design would accommodate only a single screen, so they decided to combine three 70mm images on a single 15-sprocket film, which was the first IMAX film. It was Low's thinking that since the IMAX technology was new and unrefined, the 70mm triptych could function as a backup system, with three 70mm projectors, ensuring that the project would succeed even if the IMAX technology proved too problematic. The film, entitled *Tiger Child,* could show as many as nine images on the screen at one time, and much like *Labyrinth,* the film was an exercise in inter-frame dynamics. Meanwhile, the walls and ceiling of the Fuji

pavilion were covered with slide images from 27 projectors distributed throughout the chamber. Thus, IMAX's origins were truly multi-image. (Appendix B)

While IMAX films have since veered away from multiple imagery, the status of the frame has remained crucial to its impact as a medium. IMAX is often promoted as cinema without a frame, since it fills the viewer's field of vision and thus renders the frame invisible. However, this does not mean that the frame ceases to be relevant in IMAX. In fact, the effect is quite the opposite, and IMAX has the potential to radicalise framing by suggesting that perception itself is a framing device. By using the limits of human perception as a structural guideline, IMAX maps the frame directly onto the human body, in that it is constructed to perfectly accommodate the viewer's bodily characteristics and capacities. Colin Low's IMAX film *Momentum*, made for Seville's Expo 92, was shot at 48 frames per second, double the standard speed. This technique allows for a higher quality image, avoiding the strobe effect of fast movements on a large screen, and thus might more closely resemble human perception. IMAX thus tries to address one of the key tensions of the photographic medium, that

between the photograph as a natural and objective phenomenon, and as a culturally constructed mode of representation.

Since IMAX's popularity as an attraction is a function of the ways it panders to perception, it places its viewers in a context where they must ask themselves *how* they see, as agents of social construction or as natural, unmediated sensory agents. This interrogation of the viewing experience began with *Labyrinth*'s destabilised viewer, forced into questioning reception, perception, and representation.

The Fuji Bank pavilion's similarities with *Labyrinth* also extend to the role of architecture as a key factor in the viewer's experience. *Tiger Child* was shown continuously, and the audience could enter and exit the chamber at any time. The viewers watched the film from a rotating platform that slowly moved past the huge screen. As mentioned above, the entire chamber was illuminated with multiple projections. Although *Tiger Child* did not have the same project as *Labyrinth* and their pavilions were entirely different, they share a similar attention to architectural and spatial concerns. The relationship between architecture and image has remained a crucial factor in

IMAX cinema. In his discussion of "IMAX Technology and the Tourist Gaze", Charles Acland paraphrases Paul Virilio's view of IMAX:

> IMAX's total encompassing of the field of vision collapses human sight into both filmic and architectural space; the theatre and the images merge with the audience's senses such that the only point of orientation left is that provided by the film (Acland 1998b, 430).

This viewing arrangement, where the spectator's perceptual field merges with the technological spectacle, is clearly related to *Labyrinth*'s status as an artefact of contemporary technoculture, where the taxonomies of human and machine, and of discrete art forms are explicitly questioned. Much like its World's Fair progenitors, IMAX films foreground their status as technological wonders while offering an experience that engages the viewer on perceptual, intellectual and physical levels. Indeed, the IMAX company was named "IMAX Systems" until 1990, emphasising its technological *raison d'être*.

In his discussion of IMAX as a part of Canadian film culture, Acland explains that Canadian cinema can be described as a "special venue" form. Canadian films and film viewing are often tied to specialised events, facilities, or institutions, and *Labyrinth* is a clear

example of this phenomenon. A project like *Labyrinth* would never have been created independently of a large event like Expo 67, and as I have explained, it did not survive long past the conclusion of the World's Fair. Similarly, the IMAX corporation has managed to establish an industry only by building its own special theatres, which are themselves often dependent on the infrastructure of a museum or theme park. Thus, the venues of IMAX projection are by definition "special", for they are both specific to the medium and are located in areas other than conventional film theatres.

Conclusion

I would argue that the meaning of *Labyrinth*, and its connection with Canadian self-image, lie in the dynamic it created between spatiality and multiplicity. The spaces between frames allowed for multi-screen dialogue, the movement of the visitor through space and the heightened awareness of spatial relations allowed for the progression of multiple narratives (all centred on archetypal forms), and the doubled language track represented both linguistic variety and transition between multiple environments. Thus the notions of Canadian nationhood presented blatantly elsewhere at Expo were articulated in a delicate balance that accounted for *Labyrinth*'s affective power. Would that it were still with us.

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Appendix A: *Labyrinth* Voice-Over Text

What follows are the French and English scripts for the voice-over commentary in the three chambers. Note that while they are similar in tone, they are not translations of one another.

English version:

Chamber I: This is a Labyrinth in modern dress. It has been constructed from appropriate bits and pieces of this planet. You in the balconies, each one of you, is the hero of this story.

We begin with the world, waiting for the hero.

The hero: -He comes in four colours, two sexes, and thinks in the future tense.

You are no longer just a splendid animal at play. You come from a long line of working-men, and if all things are not possible, you are not yet prepared to admit it.

One day you are confronted by your mortality but, peculiar creature that you are, you did not choose to accept it.

Our great adventure appears to have ended rather badly. The surroundings are angry and uncomfortable. But the journey is only half-done and the Labyrinth has many corridors.

Chamber II: In legend the hero is told of a monstrous beast that dwells in the dark heart of the Labyrinth and has cast a spell on the world. And so, there is urgent business: - you must go forth and hunt out the beast and break the terrible spell.

Chamber III: The hardest place to look is inside yourself but that is where you will find the beast, blocking your path to other men. Conquer it and you can truly join the world.

Just when you think you have it all, it starts to slip away.

Is the last room empty? Or is it filled with all the shapes and sounds on earth?

French version:

Chambre I: Voici que le héros se présente aux portes du labyrinthe. Le héros c'est vous et vous traversez les corridors de votre propre vie. Tâchez de rire un peu, ne pleurez pas trop et surtout n'ayez pas peur.

Ca c'est notre personnage principal. Il a le trac, il cherche son texte.

Le temp est venu pour des jeux plus rigoureux. Il faut contraindre, bâtir, conquérir car votre vocation est de changer ce monde que vous habitez.

Un jour ou l'autre il faudra faire face à l'inévitable, à l'inacceptable.

Si nos chemins vous ont semblé tourmentés, si le trajet vous a quelque peu bousculé, mille excuses.

Chambre II: A ce point-ci, impossible de reculer car le monde est sous l'emprise du minotaure et si vous en avez l'idée pour le combattre, il vous faudra fouiller l'ombre des prochains corridors où il se cache. Que le courage ne vous fasse pas défaut.

Chambre III: Vous voilà face à face avec votre ennemi, le reconnaitre c'est commencer à le vaincre.

Vous vous êtes cru au delà de l'épreuve mais la plus grande épreuve était encore à venir.

Ne peut-on que ce perdre dans les couloirs du temps ou bien y a-t-il un en espoir d'y vivre sa vie?

Appendix B: *Tiger Child*

Technical comparisons of *Labyrinth* and *Tiger Child* are of primary concern; however, if one compares the films themselves, they reveal a fascinating social "climate change" from the late 1960s to the early 1970s. *Labyrinth* is essentially an optimistic film. In spite of its dark moments, it assures us that we are on the right quest, that technology is a benevolent and necessary part of the landscape, and that humanity enjoys a fundamental unity. This message is very much in tune with popular culture of the late 1960s and the promise of radical social change for the better. However, *Tiger Child*, which follows three years later, and uses similar filmic and aesthetic strategies, even recycling images from *Labyrinth*, has a much darker message of the dangers of technology and the state of human civilization.

Many of the images in *Tiger Child* appear to be direct responses to *Labyrinth*. For example, one of the images from *Labyrinth*'s Chamber I is of a go-go dancer in a nightclub. A similar image of a dancing woman appears in *Tiger Child*, but where the dancing scene in *Labyrinth* is mildly humorous, *Tiger Child* places the

dancer at the centre of a triptych with images from the interior of a slaughterhouse on either side, making a clear and disturbing statement about the equation of the female body with meat. *Tiger Child* shocks the viewer on a number of levels by using narrative and symbolic conventions common to World's Fair films, and then subverting them: where viewers expect a go-go dancer to represent energetic youth and beauty, *Tiger Child* renders her a *momento mori*.

A particularly shocking example of *Tiger Child* visual subversion occurs in the film's representation of children. The first minutes of the film show multiple images of children playing and mugging for the camera. We then cut to a full-screen image of a little boy sitting beside a swimming pool, wearing a towel over his shoulders. The viewer is taken aback by the sudden presentation of a large, unified image, one that seems comparatively serene, without the inter-image kineticism of the preceding sequence. This sense of wonder and beauty, in part stimulated by the child's sweet appearance, turns to shock when his towel is removed to reveal that he has no arms, apparently the result of a Thalidomide-induced birth defect. What follows is a sequence devoted to images of Thalidomide

babies, many of them struggling to use prosthetic limbs and other devices. This sequence is an explication of our problematic engagement with technology; the pharmaceutical scandal of Thalidomide, and the heart-rending grotesquerie of babies trying to move their bodies inside prosthetic machines are glaring criticisms of technological hubris. The power of these images is augmented by their presentation in an IMAX format because of its position in the history of technological art, the ways it functions as a medium for addressing humans' relationships with technology, as well as the World's Fair notion of progress.