

Introduction

Beyond the entrance, passing under an enormous sculpture of a minotaur's head, you walk down a long, straight, narrow corridor with walls of indistinguishable height disappearing into blackness. Despite the sense of cramped emptiness the corridor gives you, you are all the while comforted by the presence of dozens of other wonder-struck visitors. Your group distributes among four different floors where they remain for the rest of the excursion. Your group arrives at the first chamber and watches a huge film projected on both the floor and a wall in a way you've never seen before. The film finishes and you proceed behind the wall screen and through the narrow maze of the second chamber while formless 'moving' sounds and synchronized blinking lights reflect infinitely from mirrors all around you, and you find yourself in contemplation. Finally your group arrives at the third chamber, the last chamber, where you are once again confronted by a strange screen composed of five smaller screens arranged in a cross. You twist and turn your neck to see everything you can on the screens. You're too close to see everything on the screens in a single gaze. You move and look and absorb every strange emotion unfold on the screen and around you until the film abruptly ends. You leave the pavilion. Emerging from darkness you see an elevated view of the St. Lawrence River and the remaining Expo grounds of Ile-Notre-Dame and Ile-Sainte-Helene in the distance. Such was the experience of the *Labyrinth* pavilion from the National Film Board of Canada at Expo '67¹.

The *Labyrinth* pavilion was a 4.2 Million dollar concrete structure representing the National Film Board and containing some of the most sophisticated and innovative audio/visual technology of its day. It was designed by the firm Bland/LeMoyne/Edwards/Shine in close

¹ Nash, Joanna. "Labyrinth." Personal Interview. March 26th 2010.

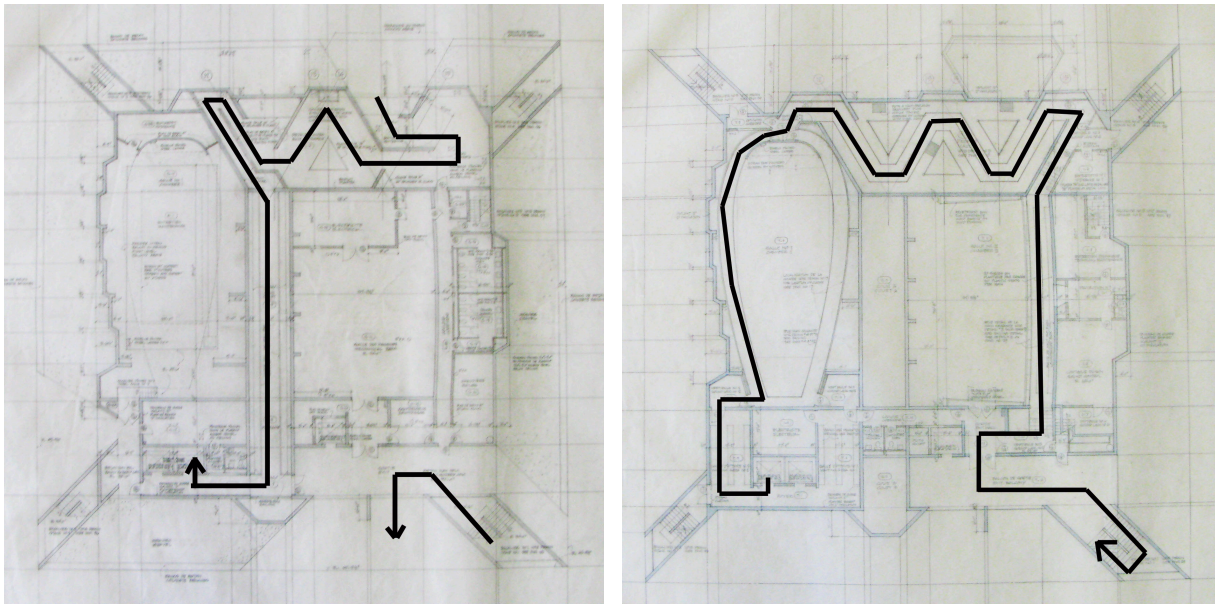


Figure 1, ground and 1st level plans of *Labyrinth* showing circulation. Entrance, vestibule, corridor, elevator, waiting area, Chamber I, Chamber II, Chamber III, exterior staircase to ground level and exit².

consultation with the film production crew from the NFB consisting of director Roman Kroitor, production designer Colin Lowe, Hugh Oconnor, and others. *Labyrinth* was particularly unique in that the filmmakers had the foremost input as to what the final design of the pavilion would be like³. As seen in this photograph by Meredith Dixon⁴ (Figure 2), it presented huge opaque facades that gave no indication as to what would happen within its walls, creating a completely isolated introverted environment that focused the participants complete attention on its inner experience. In comparison to exterior, the interior was markedly less physical. Rather, its architecture was a play of space, darkness, and perception--highly controlled by a combination of architectural organization and cutting edge multimedia technology.

² Bland, John, Architecture Blackader-Lauterman Library of, Art, and University McGill. *The John Bland Archive [Catalogue]*. [Montr  al] :: John Bland Canadian Architecture Collection, 1999.

³ Whitney, Allison. *Labyrinth : Cinema, Myth and Nation at Expo 67*, McGill Theses 1999. pp.17

⁴ Dixon, Meredith. "Labyrinth Pavilion" *Expo '67 Slide Collection*. <http://digital.library.mcgill.ca/expo-67/search/slideDetails.php?id=469>. Accessed 27 January 2010.

Labyrinth was located somewhat apart from the main grounds of Expo, it sat towards the northern tip of the Cite du Havre⁵ peninsula near Habitat '67 and the *Man and His Health* pavilion. Its entrance faced the city of Montreal to the west, and the exit faced the St. Lawrence River to the east. There was concern that *Labyrinth* would not be well visited, being so far from the popular American and Russian pavilions, but this concerns were short lived. Over the course of the 185 days that *Labyrinth* was operational during expo, it had a total of 5,255 shows, and a total audience count of 1,255,400 people who waited an average of 2 to 5 hours to enter the pavilion⁶, proving itself to be one of the more enticing pavilions at Expo.

Labyrinth dealt with the Expo '67 theme of 'Man and his World' by means of a metaphor to the *Labyrinth* of the Minotaur from mythology, that "as Theseus the hero advanced through the mysterious passageways of the *Labyrinth*, so Man throughout time has been exploring planet earth and his environment - from caveman to spaceman⁷." Within this framework *Labyrinth* articulated its ideas to its visitors in terms of multimedia technology, as did many other pavilions at Expo '67, and it is often the case that *Labyrinth* is praised not for its films, but for its innovative use of technology.⁸ But *Labyrinth* stood out from the other 'tech' pavilions. It wasn't an exhibition so much as it was an experience, and what made it really stand out, what made it truly unique, is that film and architecture were conceived together.⁹

⁵ Official Map of Expo '67. Accessed on 26 March 2010. http://www.alamedainfo.com/Expo_67_Montreal_2.htm

⁶ Mundie, P. "Audio Facilities for the *Labyrinth* Pavilion, Expo'67." *Journal of the Audio Engineering Society* 16, no. 1 (1968): 0004.

⁷ Unknown Author "The Labyrinth Pavilion" Expo 67. Accessed February 12th 2010. http://expo67.ncf.ca/expo_labyrinthe_p1.html

⁸ Whitney, Allison. *Labyrinth : Cinema, Myth and Nation at Expo 67*, McGill Theses 1999. pp. 32

⁹ Kroitor, Roman. Phone Interview. 27 March 2010.



Figure 2, Meredith Dixon's photo of the exterior of the Labyrinth Pavilion¹⁰.

The *Labyrinth* pavilion was significant in that it marked a moment in the 20th century, a high point, where media technology and architecture had advanced enough under the right social conditions where they could be integrated into a bewildering new kind of perceptual experience that had never been seen before, and has never be seen again since. This paper will address various precedents in architecture, sound, and film, as well as the cultural context that produced *Labyrinth* to understand the climate it emerged from, it will then address how these elements came together and created an experience in which an individuals normal ability of perception was altered, then it will investigate the repercussions of the *Labyrinth* pavilion, why it was popular and how its ideas of perception were absorbed into public and artistic culture afterwards.

¹⁰ Ibid

In summary, this paper will argue that what was going on behind those heavy walls in Dixon's photo was unique and important.

Social Climate and Precedents to *Labyrinth*

Expo '67 as a whole arose out of the tumultuous 60s, a period in Canada characterized in part by the yearning for counter-culture revolution¹¹, and by interest in exploring new modes of perception¹². There were various literary works at the time that illustrated this interest, of note was Maurice Merleau-Ponty's *The Phenomenology of Perception* which was translated into English in 1962 by Colin Smith. It would prove to be an influential book of the 20th century, providing a language and a theory as to how the senses allow an individual to perceive the world, and what their limits are¹³. It was also a time marked by experimentation in drugs and music where people were interested in expanding their perceptions of things¹⁴. Brutalism was also underway and present in Expo¹⁵ and is the clear architectural expression of *Labyrinth*. At the same time as construction was underway for Expo, Hollywood director Stanley Kubrick was creating his monumental space epic *2001: A Space Odyssey*, which was innovative in how it involved the viewer in its narrative. It demonstrated a different way that audiences could perceive and interpret film¹⁶ that was similar to the narrative approach of the film *In the Labyrinth* played in Chamber III of the *Labyrinth* pavilion.

Such was the cultural climate surrounding Expo '67, and adding to this melting pot of cultural stew were the possibilities of new multimedia technology to take human perception into

¹¹ Adams, Annmarie. Lecturer. "New Brutalism and Free Speech" McGill University, Montreal. 19 January 2009.

¹² Nash, Joanna. "Labyrinth." Personal Interview. March 26th 2010.

¹³ Merleau-Ponty, Maurice. *Phenomenology of Perception*, Phénoménologie De La Perception. English. London :: Routledge & K. Paul, 1962.

¹⁴ Nash, Joanna. "Labyrinth." Personal Interview. March 26th 2010.

¹⁵ Adams, Annmarie. Lecturer. "New Brutalism and Free Speech" McGill University, Montreal. 19 January 2009.

¹⁶ Agel, Jerome (1970). *The Making of Kubrick's 2001*. New York: Signet. pp.1

new realms of experience. In audio science for example, the more it has been developed over the years, the greater man's ability to divorce sound from space. Sixty-seven years before Expo in Boston Symphony Hall, Harvard Professor Wallace Sabine successfully transplanted the highly regarded reverberation time of an Opera house in Leipzig, Germany to a different space in the first demonstration of scientific acoustics¹⁷. By 1967 it was possible to use electroacoustic loudspeaker technology to infuse one room with the sound of another, or to infuse a space with a sonic character that would not exist otherwise, changing ones perception of the space. This technique was employed in Le Corbusier's Philip's Pavilion in 1958¹⁸, and would also appear in *Labyrinth*.

In film there were a number of similar examples of the 'multi-screen' format dating back to 1904, but notable is Abel Gance's 1927 Napoleon¹⁹. Gance created a panoramic widescreen effect using three projectors side by side to dramatically tell the story of Napoleon's early life. Gance also theorized about the possibilities of the multi-screen technique, and challenged 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. The way Gance was concerned with perception, audience involvement, and the development of cinema as a spatial medium, appeared in parallel within in *Labyrinth*²⁰.

Le Corbusier's Phillips pavilion for Brussel's Expo 58 World's fair²¹ was a similar architectural precursor to *Labyrinth* as a work that attempted to integrate architecture and

¹⁷ Pybus, Cailen. "Modernity: More Than Meets the Eye." 5-8. Montreal: McGill, 2009.

¹⁸ University of Maryland. "Le Corbusier: Phillips Pavilion, Brussels, 1958" A Treasury of World's Fair Art and Architecture. Accessed March 26th 2010. <http://hdl.handle.net/1903.1/29>

¹⁹ Whitney, Allison. *Labyrinth : Cinema, Myth and Nation at Expo 67*, McGill Theses 1999. pp. 40

²⁰ Ibid pp. 72

²¹ University of Maryland. "Le Corbusier: Phillips Pavilion, Brussels, 1958" A Treasury of World's Fair Art and Architecture. Accessed March 26th 2010. <http://hdl.handle.net/1903.1/29>

multimedia technology in a single complete experience. It showcased the cutting edge of the Phillips Corporation's audio-visual technology, but in a more abstract way than by *Labyrinth's* narrative-driven approach. It clearly toyed with perception in the manner in which it created 'moving music' by staggering an audio track across hundreds of speakers in the pavilions interior, a technique also employed in Chamber II of *Labyrinth*.

There were clear precedents to what was experienced within the concrete walls of *Labyrinth*, but no prior project could compare in the sheer scope of sophistication which *Labyrinth* would encompass to integrate these ideas of architecture and multimedia technology.

Film and Architecture Conceived Together

Recall the idea of the gradual divorce of sound from space as a result of the development of sound technology. At the time of Expo '67 the possibilities of this split were emerging, recording and loudspeaker technology could isolate sound from space, but in the *Labyrinth* sound technology, as well as film and architecture, came together in an optimistic way. In step with the theme of 'Man and his World' *Labyrinth* demonstrated how the new perceptual possibilities of media could immerse the viewer in a new experience that was more immersive than their typical perception of reality, delivering them an emotional and powerful message about the possibilities of man's powers of accomplishment through the narrative of the *Labyrinth*.

Such was the intention of Kroiter and his team. In Chamber III visitors watched *In the Labyrinth*²² a film created specifically for the *Labyrinth* pavilion and the room in which it was to be presented. On its five screens it presented combinations of images, creating concepts or

²² National Film Board of Canada. "In the Labyrinth" YouTube. Accessed 12 March 2010.
<http://www.youtube.com/watch?v=J1BT1xt6yq8>

feelings that one alone could not do²³. With a single image the brain process is completely concrete, such as looking at an image of an ocean with waves; but if one contrasts that image with an image of a person's thoughtful looking face, you start to get something else, perhaps a clue as to what is inside that person. "That's the fundamental," explains Kroitor, "When you do that you free the audience from the real in front of you. You fuse it into another kind of reality. A more poetic kind of reality."²⁴ This is what was contained within those brutalist walls in Dixon's photo, befitting of the social idealism of the brutalist form, the counter-culture yearnings of the 1960s, and the theme of Expo--a more poetic reality.

The interior architecture of the pavilion operated in a more tangible sense than its symbolic exterior: the spatial organization of the pavilion was integral in facilitating this immersive, more poetic reality. Indeed the architecture of *Labyrinth* can be seen as a great machine that processed millions of people through an experience, and it is in this light that the Labyrinths creators at the NFB christened *Labyrinth* with the monicker "the sausage machine."²⁵ There are numerous examples throughout the building of how architecture accentuated the overall experience, but this paper will focus on Chamber I and III.

As described, Chamber I was a room teardrop shaped in plan with four consecutive galleries rising around a massive screen projected on the floor. A duplicate of this screen was reflected at a 90 degree angle on widest part of the teardrop wall, forming an 'L' of two screens.

²³ Kroitor, Roman. Phone Interview. 27 March 2010.

²⁴ Ibid

²⁵ Whitney, Allison. *Labyrinth : Cinema, Myth and Nation at Expo 67*, McGill Theses 1999. pp. 31

Thus when standing at the banister of the gallery one could look at the screen on the floor, the wall, or also at the audience across from you and observe their reactions, making the visitor aware of their own participation with the Labyrinth. Furthermore, the sharp angle between the banister and the floor made it necessary for the viewer to lean out over the over the abyss in order to see the floor screen, heightening the sense of vertigo and physically involving them in the act of watching the film²⁶.



The above description of Chamber I illustrates how architecture was influenced by the film to be played within it, but the inverse can be seen in Chamber III and its film *In the Labyrinth*. The choice of placement of images within the scheme of the cruciform had a perspectival relationship to the physical world, one sees ‘upwards’ images like church bell towers, the sun and the moon, distinctly in the top screen; images of the horizon spread across the middle three; and often the bottom screen is focused on the ground²⁷. Furthermore, there is a fundamental idea in *In the Labyrinth* which originates in architecture--that a deeper impression of film can be achieved in the way it is projected across space onto a wall. In Chamber III the wall of the screen is so large and the depth of the space between the audience and the wall so short that the full perspective of the wall from any single audience member is greater than the

²⁶ Nash, Joanna. “Labyrinth.” Personal Interview. March 26th 2010.

²⁷ National Film Board of Canada. “In the Labyrinth” YouTube. Accessed 12 March 2010.
<http://www.youtube.com/watch?v=J1BT1xt6yq8>

surface of the retina. Thus there is a physicality in the way a viewer perceives the images on the wall. One must actually move their head and eyes to look at the different screens of the cruciform. This notion of active audience participation was originally theorized by Gance²⁸, and is the requirement for what he describes as engaging the plurality of the consciousness of the audience member, creating a deeper more involved perceptual experience of being ‘in the moment.’²⁹ One can therefore conclude that the spatial organization of such a viewing room is integral to such a viewing experience. It is also interesting to note this architectural implication in the use of multiple images. The images of *In the Labyrinth* yearn to be seen on the wall of Chamber III.

Reception of the Labyrinth

According to Roman Kroitor, the goal of Labyrinth was not to make a pavilion that people would like, but just to make as good a pavilion as possible, and hopefully if it was good people would like it³⁰. Nash explains that early on in the summer it was only the curious locals who came to see Labyrinth, but it wasn’t long before word got out and people started coming in flocks³¹, waiting up to eight hours in the rain to get inside³². It is likely that the line seen in Dixon’s photo wraps all the way around the pavilion and throughout its site. The lines reached a point where visitors would gather at the main gates of Expo in the morning, and there would be a great thundering of people running through Cite du Havre to reach the *Labyrinth* line early³³.

²⁸ Whitney, Allison. *Labyrinth : Cinema, Myth and Nation at Expo 67*, McGill Theses 1999. pp. 70

²⁹ Nash described the feeling as like when she paints, of being so active and complete an involvement in the space, that you start to lose your ability to perceive space and time properly. Nash, Joanna. “Labyrinth.” Personal Interview. March 26th 2010.

³⁰ Kroitor, Roman. Phone Interview. 27 March 2010.

³¹ Nash, Joanna. “Labyrinth.” Personal Interview. March 26th 2010.

³² Kroitor, Roman. Phone Interview. 27 March 2010.

³³ Ibid

But why was it that people were so drawn to *Labyrinth*? The answer is twofold: because it was simply a good pavilion, and because everything about it happened at the right time. The measure of ‘good’ is taken from the fact that Kroitor’s team fulfilled their intention, to create an immersive kind of new experience blurring the limits of perception that had the capability to reach a person in a deep and meaningful way and change them³⁴. To Nash, she learned that new experiences like that of *Labyrinth* they had the capacity to change her,³⁵ and so the intent of the pavilion was communicated successfully. Furthermore, people had simply never experienced something like *Labyrinth* before, and the spectacle of its presentation kept drawing people back.

It is interesting to note that *Labyrinth* achieved renown in both the public and artistic spheres, but has been digested in different ways. In tracing back the original precedents of *Labyrinth* and observing how these precedents coalesced within it, one can argue that after the *Labyrinth* there was a split in the trajectories in which *Labyrinth*’s ideas of deep perceptual experience would continue: commercially in the public realm with the birth of IMAX which Kroitor and some of his colleagues would found a year later, and also more discretely in the art world.

In its original inception Kroitor saw IMAX as a means of propagating multi-screen cinema and creating more ‘poetic’ films like *In the Labyrinth*, but it quickly became apparent that the general public was not interested in the poetic potential of multi-screen, but preferred the concrete narrative style employed by a single screen film. There were only about 10-15 attempts at multi screen cinema after *Labyrinth*³⁶. IMAX also never achieved the same kind of integration

³⁴ Ibid

³⁵ Nash, Joanna. “Labyrinth.” Personal Interview. March 26th 2010.

³⁶ Kroitor, Roman. Phone Interview. 27 March 2010.

between architecture and multimedia as seen throughout *Labyrinth*, as the IMAX experience does not require one to progress through a space.

In the artistic realm of Montreal *Labyrinth* was absorbed differently. There were reverberations in the art milieu and many art installations afterwards tried to use *Labyrinth's* smoke and mirror ideas of maze and projection ideas to attempt to change one's sense of perception, many of them not successful³⁷. However, Kroitor insists that multi-screen film will have its comeback even if it takes 100 years, that there is just too much unexplored poetic potential in the medium for it to be left alone³⁸. Nonetheless, it is safe to say that nothing truly like *Labyrinth* has been achieved since.

Conclusion

Labyrinth stands as a high water mark for what is possible when exploiting the perceptual potential of multimedia technology and architecture. Its individual ideas were not without their precedents, but it took the cultural climate of the 1960s and the creative opportunity of Expo 67 to bring all the constituent elements together and produce “just a really great time³⁹.” The use of such elements was incredibly innovative for its time and has left a strong impression of the wonder felt by those who had the opportunity to experience it. The NFB team's intention was met: to infuse *Labyrinth* with the ability to create an experience that could reach people and change them in a deep and meaningful way. After Expo '67 there were repercussions of *Labyrinth* in both the commercial and artistic spheres, but no other film or architectural

³⁷ Ibid

³⁸ Ibid

³⁹ Lemieux, Ted. Phone Interview. 27 February 2010.

experience has yet compared to how *Labyrinth* used technology and architecture to create such a unique experience.

However, when looking at the recent work of rising independent animator Don Hertzfeldt, one may ask themselves if it will really take as long as Kroitor predicts for the artistic potential of multi-screen cinema and architecture to be exploited again.

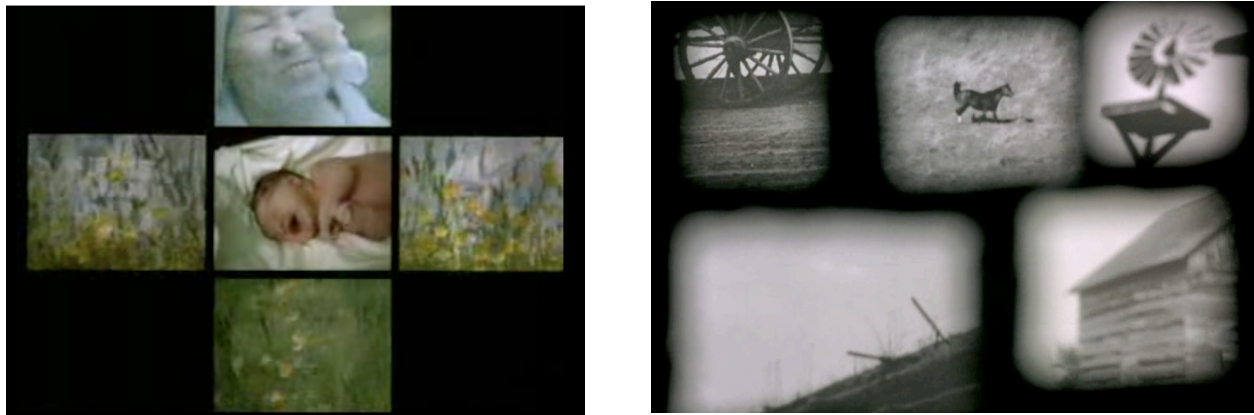


Figure 4 Screens from the 1967 *In the Labyrinth*⁴⁰ and Don Hertzfeldt's 2007 short animation *i am so proud of you*⁴¹.

Acknowledgments

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⁴⁰ National Film Board of Canada. "In the Labyrinth" YouTube. Accessed 12 March 2010.
<http://www.youtube.com/watch?v=J1BT1xt6yq8>

⁴¹ Hertzfeldt, Don. "I Am So Proud of You." Bitter Films, 2007.

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