I, Paula A Lewis, hereby submit this original work as part of the requirements for the degree of Master of Architecture in Architecture.

It is entitled:
Take Your Time:
Time Perception and the Experience in Queue Lines

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Take Your Time:

Time Perception and the Experience in Queue Lines

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ABSTRACT

Waiting in queue lines is an overall frustrating and aggravating experience for people, because high anxiety levels and boredom make the perception of time feel long. Additionally, the era of instant gratification has amplified the painful experience of waiting to the point that, soon, merely guiding people through a queue will no longer be tolerable or acceptable. In order to manipulate time perception and improve the experience, a valid architectural proposal for queue lines should address a finite expectation about the wait, so anxiety levels are reduced, and multisensory and interactive experiences, since intervals of time filled with sensory stimuli produce bodily reactions and time distortions, where individuals are unable to estimate the passing of time. Specifically, the analyses of related literature and successful case studies will support an approach for waiting in lines that will not only explore the shortening of time, but rather distort it, so the experience will be perceived as a worthwhile, memorable transition.

A South American Pavilion at EPCOT, Walt Disney World, will be produced as a “continuous queue” exhibit space to present to an audience of business managers, marketing analysts and Disney executive architects, in benefit for their business, customers, and guests. As a result of this production, these audiences will gain valuable insight about how architectural design can not only make people perceive time as short, but rather manipulate it, with a place that will offer visitors the opportunity to take their time to constantly stop, fully experience, actively engage, learn, and enjoy a playful and surreal changing environment. The aftermath of these actions will be a memorable experience for their visitors, a high rated image of their service, and an improved customer retention for their business as well.
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Figure 1.1 – The experience of waiting in lines
WHY QUEUE LINES?

My interest in queues goes back to a number of experiences in these places when I was a child. By that time, these experiences in the public realm were shared with my parents, but especially with my father. Every time we went to buy, for example, tickets for a movie, groceries, or do any other errand, we never entered the place if the line was long. Other times, we got into a place and were given a ticket with a number, but after realizing that there were at least twenty people before us, we better left the place after a ten minute wait that felt like eternity. In the end, my father was always very annoyed, incapable of achieving what he planned to do, and because children care about their parents, I felt frustrated and powerless because I couldn’t do anything to overturn his feelings.

Time feels long while waiting in queue lines, and although companies and service providers try to improve the experience for customers, they only mitigate the pain. As a matter of fact, the attempts to fix the issue are expected to be solved at a Management/Operations level with available tools such as, an increase in human resources and/or the implementation of new technological devices (pagers), and yet they do not guarantee a shorter wait, or at least a wait perceived by customers as worth their time.
Figure 2.1 – The aggravating experience of waiting in lines
LITERATURE REVIEW

Background

There might be a few people or customers in modern society who have not felt, at one time or another, my father’s emotion of frustration while waiting in queue areas. As a result, the experience turns out to be further “demoralizing, agonizing, aggravating, annoying and time consuming,”¹ because high anxiety levels and boredom make the perception of time feel long. It is a significant problem for companies as well, because the overall judgment of the quality of a service is defined by the bad customer’s experience, with the end result of losing the customer and a low rated service image.

Although boredom and high anxiety levels are current companies’ focus and efforts to lessen the perception of time as a “very long” wait, they don’t make a significant contribution to the customer’s experience. For instance, it is common to hand out menus while waiting to be seated at a restaurant, though this “filler time” practice only mitigates boredom. Another strategy is to hand out a pager or a ticket with a number to the customer, in order to better manage and reduce the anxiety of waiting in a fair manner. However, what has been neglected with this last practice is the fact that speeding up serving times does not guarantee a solution to the problem of experiencing a long wait, because a two minute wait can feel like nothing at all, or can feel like forever. Moreover, it does not assure a reduction on the levels of frustration either. In the end, no companies’ efforts or solutions make people significantly perceive

time as short in queue areas, nor a less frustrating experience either. Furthermore, the problem of the perception of time and the experience of waiting in queue areas has rarely been addressed to the architecture field.

Most of the current academic studies address the issue of waiting in lines by analyzing time perception and the experience of waiting from a psychological point of view. Since architects design spaces for people, the significance of these texts lie on the psychological and behavioral insights that relate to how a wait can feel long or short and what activities, or how sensory stimulation can affect time perception. Meanwhile, other texts address the relationship between experiencing architecture and the senses, so that multisensory architecture, designed and directed effects, or places that tell a story can alter or distort the perception of time and can provide a richer or memorable experience as well.

**The Psychological Insights**

In “The Psychology of Waiting Lines,” David H. Maister, American writer, former professor at the Harvard Business School, and expert on business management practices examines how waits are experienced by people from a psychological point of view. According to Maister, “occupied time feels shorter than unoccupied time,” since boredom is one of the critical issues that affect the perceived time as long. He also points out that “anxiety makes waits seem longer,” because of the concern and doubt whether or not one had been forgotten. Filler activities are a good strategy not only to make a customer occupy time but to reduce anxiety levels, because they convey and

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2 Ibid.
3 Ibid.
give a sense that the service has started, and the awareness that the customer is there. In other words, “in-process waits seem shorter than pre-process waits.”

The inclusion of other activities in queue lines, rather than waiting, can eventually lessen the customer’s frustrating experience, since occupied time feels shorter than unoccupied time. As a matter of fact, restaurants offer customers to wait at a bar area, or a neat gift shop while waiting in line to order a cup of coffee. Although valuable and informative claims about human behavior and the experience of waiting, David H. Maister neglects how willingly a customer might perform those alternate or filler activities. In other words, how motivated a customer would be to start drinking at a bar area before having a meal? However, from an architectural point of view, it is valuable to recognize that filler activities in queue lines are a good strategy to implement in a project, since they reduce boredom, anxiety levels, and most importantly, time feels shorter so that the waiting experience is a less frustrating one.

In *The Psychology of Time*, Paul Fraisse, a leader in French psychology and Emeritus Professor of Experimental Psychology, University of Paris, affirms that motivation to perform an activity is key to perceive time as short. Clearly, lack of motivation tends to interrupt attention or shift your focus to a certain activity or task. Fraisse would also agree with Maister in that occupied time feels shorter than unoccupied time, but additionally, with active participation, time passes by faster than passive activities. For instance, time feels shorter for the student who is taking notes than the one who passively listens.

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4 Ibid.
Motivation and active participation in some kind of activity definitely impacts the perception of time as shorter than passive activities, or the lack of motivation to perform them. A company’s knowledge about their customers’ preferences and likes is highly desirable to keep them involved or motivated to actively participate in an activity designed to wait in queue lines. In other words, a company should know about the clients’ expectations and interests in order to keep them engaged in those filler activities, or to match those activities accordingly with their interests. Paul Fraisse’s arguments are significant in that an individual’s motivation to perform an activity with active participation or interaction will reduce boredom and anxiety levels, and the individual will perceive time as short.

Time is perceived as short or fast in terms of speed, with space/container values or characteristics that Maister and Fraisse use when they refer to time as it can be ‘filled’ with activities, so it is perceived as short. However, it could be filled with other alternatives rather than activities. In *Patterning of Time*, Leonard W. Doob, pioneering figure in the fields of cognitive and social psychology, and Sterling Professor Emeritus of Psychology at Yale University states that not only filled time with activities is perceived as short but any kind of sensory filling has the same effect within an interval of time. According to Doob, underestimation of real time occurs when a room is lit up,\(^6\) compared to a dark one. Similarly, within a same interval duration, the sound of a buzzer affects the estimation of time as short, compared to an individual sitting in a soundproof room with no sounds at all. Professor Doob also affirms that longer intervals of time with same or “similar stimuli produce time distortions, and individuals are unable to estimate the passing of time.”\(^7\) Since temporal judgements are patterned by beliefs and attitudes which are recollected in the past, and which affect

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\(^7\) Ibid., 117.
future anticipations, longer intervals with sensory stimuli in the present affect our previous interval reference to the point that we forget it.

From an architectural point of view, it is mostly probable that a complete attention or full immersion experience with sensory stimulation is one of the key strategies to manipulate time perception. In this sensory ‘filling’ scenario, boredom is replaced by the individual’s body and senses responding to stimuli, and so the waiting experience will be a less frustrating one. Similarly, time perception distortions or discontinuities within long intervals of time are favorable for the experience in queues, because if there is no temporal judgement, future anticipations are less expected, and therefore, anxiety levels should drop significantly. Furthermore, if time perception disorientations occur under this scenario, then an opportunity arises to establish new time patterns, not only to perceive time as short, but as a means to direct the individuals’ attention to both the sensory stimuli and the experience itself. Doob’s insights are not only meaningful in that sensory stimulation can affect the perception of time as short, making the waiting experience in queues a less frustrating one, but time perception distortions can also improve that experience while individuals lose track of their last time interval reference: they can affect or delay future anticipations, reduce anxiety levels, and allow new time patterns when the multisensory stimuli is experienced for longer intervals of time.

**Multisensory Architecture and Desired Effects**

When the opportunity arises to improve people’s experience while waiting in queue areas (particularly when time disorientations occur), it is worth to explore what kind of experience connects the best with the individuals’ reactions, so their focus is not time perception, but both the sensory stimuli and the experience itself. In *The Eyes of the*
Skin: Architecture and the Senses, Finish architect and phenomenologist Juhani Pallasmaa states that a multisensory architecture facilitates not only a better experience for individuals, but an authentic one, in that it allows a sense of belonging an integration with an environment. According to Pallasmaa, it implies action, a “bodily reaction as an inseparable aspect of the experience of architecture,” and its authenticity is grounded in the tectonic language of the building and its dialogue with the five senses. Otherwise, the consideration of only one sense, the sight or focused vision, and the suppression of the other senses leads to an impoverishment of our environment, causing a feeling of detachment and alienation, making us mere spectators. Pallasmaa also agrees that within the experience, architecture has the ability to emancipate us from the present, since buildings and cities are instruments and museums of time. They enable us to see and understand the passing of history and to participate in time cycles that surpass individual life. Finally, the author believes that architecture has the ability to also liberate us from the present by acknowledging the human capacity to enter a remembered or imagined place. Pallasmaa further explains that spaces and places enticed by a work of art like literature, or cinema, and their power of enchantment “are real in the full sense of the experience.”

Multisensory architecture allows us to live authentic experiences by an active dialogue, a bodily response between all of our senses and the ideas that designers communicate through the tectonic language. In other words, these experiences and their full connection with the architectural environment are another way for individuals to perceive time as short, or not perceive time at all. However, in the context of the pavilion (exhibit) type in a themed park environment, the multisensory, architectural

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9 Ibid., 63.
10 Ibid., 52.
11 Ibid., 68.
Tectonic language is not the only medium that provides an authentic experience, but rather complimentary tools, other disciplines and design fields work together to provide that experience. At the same time, the experiences and architecture that collapses or controls time cycles for an exhibit space (the one that emancipates us from the present), are as authentic and real as the full experience of an architecture in the present. For example, the South American Pavilion project (a continuum queue space) will provide a sequence of experiences while waiting in line or in groups, to ‘live’ the region through its culture, history, economy, demographics, landscapes and geography, food, smells, etc., based on my own memories or enticed by works of poets, musicians, painters, etc. In a multisensory architecture like this, a key design strategy is to collapse time, as film or literature does, in order to delight with some South American key moments that defined the culture and history of the region, create multisensory experiences, and define a place symbolic of a land, that in real time it takes between six and thirteen hours to get to. First, Pallasmaa’s statements are relevant to my topic in that multisensory architecture allows individuals to live authentic experiences that give a sense of belonging with their environment through a full bodily interaction, and therefore, time perception feels short or distorted after long intervals of time. Second, multisensory architecture experiences can be authentic in the full sense of the experience in the present, when time patterns or cycles adjust to places that we remember or imagine through works of art.

Meanwhile, some authors believe that authentic experiences not always have to depend on conventional tectonics language. In Brandscapes: Architecture in the Experience Economy, Anna Klingmann states that “when the subject of authenticity is approached from an experiential view, the experience itself is always real, whereas the medium that
is used to activate it, whether virtual or material, is always staged.”12 Any means of bringing forth a genuine reaction through a compelling experience, “is always, by definition, artificial.”13 According to Klingmann, the desired effects rather than the experiences, must be deliberately designed, or choreographed, where architects have to relinquish the idea of absolute control and accept the fact that they can only direct those effects, which ultimately take shape in the mind and body of the individual or user. One popular example is “the architect as choreographer that sets the stage (architecture), determines the plot/drama (activities), and guides the actors (users) through a dramatic sequence of situations and events”14 within a fluid zone of moving bodies. She further affirms that the real value of a building in the experience economy, especially in experiential architecture and branded environments, lies in “its ability to provoke pleasure, to build relevant and memorable experiences at different points of contact with its users, in the transformation it brings forth and the activities it evokes.”15

One major difference compared to Pallasmaa’s view is that according to Klingmann, desired effects rather than experiences, are deliberately designed, directed, or staged. Experiences are authentic and out of our control, since individuals perceive and live those experiences in different and particular ways. Meanwhile, designed and expected effects comply with an exaggerated or dramatic experience, since this can be ‘compelling’, ‘relevant’, and ‘memorable’, to name a few. From a branding point of view, it is no surprise to easily associate these bold terms with a marketing campaign, or a dramatic performance. As a matter of fact, the architect as a choreographer, director, and writer, confirms the framework of a drama, or a show. Klingmann’s

13 Ibid.
14 Ibid., 314.
15 Ibid., 325.
insights are significant in that by taking the experiential effect as a point of departure for the design process, architects are given unlimited freedom to explore new strategies that can potentially elicit effects beyond conventional materials or mediums. At the same time, since my project and research looks for ways to activate full bodily reactions to sensory stimulation, so time perception is short or not noticeable, terms such as ‘relevant’ or ‘memorable’ are stronger concepts to describe a resulting experience than a ‘better’ one. Furthermore, both descriptions imply that experiences are unforgettable, thus more chances for individuals to re-live the experience again.

**Themed Environments**

In the same way, environments or places are designed holistically as a show or a performance, in order to activate similar effects and experiences. In *Designing Disney: Imagineering and the Art of the Show*, John Hench, Disney’s Senior theme-park designer since Disneyland’s conception, states that the basic idea behind the first themed environment in the country, was to provide guests (users/visitors) a place or a whole-system environment based on Disney’s live-action and animated films. He affirms that place design can be looked as the ‘art of the show’, not only from the “broadest conceptual outlines to the smallest details, encompassing visual storytelling, characters, and the use of color,”16 but to unified themeing, a general theory to design places, “so that every element contributes to tell a story through time”17 (the fourth dimension). Hench also affirms that themed environments evoke instant moods on ‘stage’ (visitor’s realm), support the story, the show, and deal with stagecraft, multi-media, and interactivity, so that it creates a total immersion and entertaining experience.18 Themeing extends to “dining, transportation, trash receptacles, transitions, queuing,

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17 Ibid., 1.
18 Ibid., 20.
pricing, and wayfinding, elements must work together in a dynamic way without conflict or contradiction.”

According to Hench, any interference is a drawback for the show and the guest’s experience, but most importantly, “to the guest’s feelings of ownership as participants, players on a stage, not just passive viewers.”

Places that tell a story seem to be one of the key aspects to be ‘the happiest places on earth’, and the road to economic success for the Disney Company and its themed environments. Although every aspect or detail throughout the parks supports ‘the show’, compelling stories are the central foundations of place design, because they are the basis to evoke spatial moods and emotional journeys. As a matter of fact, some attractions at Disney California Adventure and The World Pavilions at EPCOT in Orlando, are fragilely sustained by weak and different stories, not Disney live-action or animation ones. Unfortunately, they have proven to be less entertaining attractions than others as well. Another important aspect at Disney Parks and Resorts is to provide a total immersion and entertaining experience to the guests (Disney’s visitors), as well as to encourage a feeling of ownership of public spaces or ‘the stage’. Particularly, guests are actors in the show, instead of passive spectators, and it might be the main reason for repeat visitation, the ritual return scheduled at least every two years into the family calendar, and the resultant massive profitability that is the outcome. Finally, all themed elements, such as attractions, restaurants, transportation, transitions, queue areas, and wayfinding, to name a few, are designed in a dynamic way, so they can work together without conflict or contradiction with the show and the guest experience. In other words, every element works as a transition and part of a continuous system. The author’s most valuable statements for my topic are first, a good understanding of the company’s culture, and the objectives as an organization and business that support the

19 Ibid., 23.
20 Ibid., 79.
importance of a compelling story. This type of story is supported by all theme park elements through a show, because they help to evoke moods and emotions. Second, the goal to provide full immersion and entertaining experiences, so the visitor is fully engaged and is expected to return. Ultimately, the concept that a themed park element is part of a dynamic and continuous system of transitions, which does not contradict or enter in conflict with the show or the guest experience.
Figure 3.1 – The Blur Building on a windy day
CASE STUDIES

Blur Building – Swiss Expo 2002, Yverdon-les-Bains, Switzerland
by Diller+Scofidio+Renfro

Blur Building, an exhibit pavilion for Swiss Expo 2002, designed by New York architects Elizabeth Diller and Ricardo Scofidio, from Diller+Scofidio+Renfro, is an extreme approach to experiential architecture that I would like to analyze as a starting point for my exploration towards a pavilion building type. Conceived as an ethereal icon, the pavilion’s purpose was to allow a memorable event for its visitors. The pavilion literally looked like a cloud floating on Lake Neuchâtel (north of Lake Geneva), by creating an artificial mist that was generated by over twenty thousand fog nozzles mounted on a steel cable structure. Visitors walked down a long ramp, and then landed at the center of the cloud, where they were instantly enclosed by a vast, disorienting and challenging fog. In the meantime, the entrance to the structure remained concealed by its visitors until they got near the pavilion’s interior, which upon entry, it revealed a variety of sounds, smells, and sights. In the end, visitors experienced a confused orientation and a blurred visual perception. Additionally, guests could go to another platform to enjoy the views of surrounding mountains or engage in quiet reflection, above the fog.

The experiential architecture used different forms of water (drinking water, fog, dew) as the main material for design, with the support of a system of computers that adjusted the intensity of the spray according to changing climatic conditions. For example, the pavilion expanded and contracted, and occasionally, it generated long fog
trails up in the sky. Another engaging feature was that guests were encouraged to interact with the building and with others through ‘smart coats’ or tech-raincoats. These offered protection from the surrounding mist and also used as communication tools, since they lit up in specific colors depending on similar interests among visitors.

Figure 3.2 - The building without the mist effect.

Figure 3.3 - The building and the fog effect.

Figure 3.4 - The fog as a trail, conditioned by climate conditions.
Figure 3.5 - The access ramp and the cloud in the distance, rather than a building.

Figure 3.6 - The blurred perception in the cloud.

Figure 3.7 - Interaction between people while wearing smart raincoats. At the bar, serving drinkable water.

Right - Figure 3.8 - The nozzles in action.
Figure 3.9 – Matrix Analysis
Physical Network Field

Model of the Blur Building as the physical field.

Virtual Network Field

Model of the Blur Building as the projected identity medium.

Circulation Transition Zones.

Model of the Blur Building as transition zone.

Figure 3.10 – Fields and Zones Analysis
The most significant aspects from this building are first, that it was conceived not as a structure/building, but as a habitable medium without form or dimension, based on the purpose to provide visitors a memorable event. It seems like the start point for design was a raw and bold desired effect, because the habitable medium gave the feeling of being part of a constant metamorphosis. Second, other materials supported the desired effect, such as the smart raincoats, or visitors also had a soundtrack playing of ambient musician Christian Marclay, which supported the cloud into an enormous sound atmosphere, like visiting heaven. Ultimately, it questions new ways to think about architecture that strives to create an edgeless, purely sensory encounter, and it also reflects on where the difference lies between architecture and non-architecture.

Figure 3.11 – The Bloch Building Interior
Setting, Approach, and Arrival (one of the multiple)

We appear from the small scale, not too densified, Southmoreland neighborhood of Kansas City, Missouri, a garden city like urbanscape with linear/gridded street traces (from downtown Kansas behind us) and its traditional two-story residencies with front yards, sidewalks, and old trees that define the boundaries of a park. An enclosed, translucent (almost blending with the sky), quiet form (horizontal) with a familiar light-manufacturing appeal, barely materializes (presences) perpendicular, contrastingly, and in close proximity to a monumental (horizontal as well), foreign (but familiar, traditional) rocky “Temple” (landmark). Both define an L-shape boundary to an open, ground level, differentiated water-plaza. A strong sense of centrality and solemn aura is emphasized by the obvious and already understanding that some divinities dwell inside the temple (to admire with respect), heavily protected from the life-world mortals, while the other weak boundary is skewed and we are forcefully directed to look at an imaginary, vanishing point located in the center of the ‘Temple’.
Post Badminton Match Scene or Bounced off the Plaza

We recognize the familiar (multi-cultural) pattern of plaza-and-cultural-monument, and a strange sense of freedom is increased by both, the openness of the water-plaza and the realization of the situation that we cannot cross, gather, or walk on, so we are confused and banished at its edge by the street. We are merely distant observers of a temple and a side appendix, increased by the shuttered doors behind the portico. Now we are definitely not welcomed, and once again, we feel abandoned, scattered at the edge of the plaza, just bounced off by a wall, like the oversized/monumental ‘birdie’ sculpture on the third edge of the place. Furthermore, we are disturbed as well by the haunting power of the static, stiff headless men sculpture next to us. Are they waiting for final judgment? Are they beings-from-other-world in silent communication with the weak, translucent boundary?
The Dynamic and Surreal Scene Collage

We are mere spectators observing a dynamic art composition of random objects, like a surreal sculptural collage in a park, emphasized by the interplay or dialogue between the static Greek monument and the bounced off, oversized birdie still falling, and the headless people trying to communicate with the light weight façade.

The Lintel-and-Post-Form – Fragile Veil

Once we have recognized our situation as distant spectators of a surreal collage, the scene keeps challenging us until we realize that the headless folks were giving us a hint. At a closer look, the basic, translucent glass shape is a lintel-and-post form that cuts out (still a surface, no visible depth) and spans a shallow, transparent glass void. It looks like a gateway, the shared cultural archetype behind this façade, but its monumentality and heaviness here are replaced by its sincere neutrality and pure simplicity (the familiar light-manufacturing appeal mentioned before), along with its delicate lightness and fragility to express a function. We are reminded of a fragile and intriguing veil, a light and translucent curtain that timidly rolls up to let us in. We are finally welcomed to enter.

Figures 3.13 and 3.14 – The Post and Lintel form
The Primary Experiential Situation

What are people there to do, and how is that (the anticipated and the realized experience) affected by the reality that life is already taking place? We can shift the ‘hermeneutical as’ from ‘an encounter walking in Kansas City’ to ‘engaging with contemporary/alternative, and/or traditional art’ and the meanings deepen and expand. The experience is different. For the art lover(s), the strange compound place-experience is saturated with moods or attunements of further curiosity and stimulation, ready to both, interact and open to new or alternative art (not already ‘judged’ by the mortals of the lifeworld), and to engage, connect, admire or reject old or ‘traditional’, past and present ideas, with people whom you already share an interest and are going to share (or not) a similar refreshing, different, thought-provoking, and engaging experiential or reflective interaction with works of art. The scene collage (in all its contrasting, strange, disturbing, surreal, intriguing, and challenging qualities), as a work of art, intensifies these attunements.
The Underground Experience or the Edgy “Underworld”

We cross the gateway to enter an unusual hall. We are not gathered, since we are in the way of people going up or down a ramp. We realize this is not a hall but rather a ramp recess, a transition space, so we decide to follow the crowd, downwards.

The gateway (in all its neutral, light weight, intriguing veil form/surface), now further surprises, and even astonishes and fascinates us, since we are presencing an entire underground, longitudinal place (‘wow’ effect). A sequence of twelve to sixteen foot wide ramps, sections of which are two stories tall, descend and slide by each other like a manipulated landscape. They connect intermittently to galleries on the left, and to traces of an outside to the right and above, which is partially revealed in the form of walls and ceiling that combine clear and translucent windows and clerestories, letting light and shadows visible in perfect counterpoint. The ramps-sequence place and its poetics remind us like navigating or moving through an undulating river of light and shadows, which draws us in and sends us on our way to art, until we reach a door that connects to the landscape of a park, with more works of art in the form of sculptures.

At the same time, a sense of neutrality and intimacy is emphasized by the underground condition, in that the building is never foregrounded in any way that would distract the visitor from direct engagement with art, while the Greek temple is completely removed from the views. The senses of strangeness and disorientation are stronger as well, since only light and shadows are permanently visible coming from an outside, somewhere above us, reinforcing the feeling that we have entered into an unfamiliar special world from nowhere else. The Bloch building addition to
the Nelson Atkins Museum of Art sets different life-(under)world conditions to happen, since it manipulates the fourfold to our dwelling, in that the earth and its ground is way below ground, and the sky and its ‘above-ness’ here are a distant notion, but not out-of-memory.

This place (in all its ‘transition-ness’, neutrality, intimacy, strangeness, disorientation, and ‘underground-ness’) yield a human (Greek, traditional) identification by calling inevitably to mind the Underworld metaphor. According to the religious belief, this strange world is a passage or transition place for the dead, below the earth and/or at the eastern edge of the world, awaiting for final judgement. Evidently, the dead here are not zombies walking around but instead, works of art have been disengaged from their creators and set for display to be judged by mortals alive. Therefore, the Bloch building, has the capacity to work for visitors, since it unconceals art in a way that, as we said before, the building is never foregrounded, so that Art lovers can engage and additionally judge those works. We gather and dwell as mortals in a place where works of art are gathered and dwell as well, to judge the ‘art divinities-to be’.
Figures 3.15 and 3.16 – The interior sequence of ramps
The Backyard (or Front yard) Setting, Approach, and Arrival - Night Effect

Five rectangular boxes, covered in translucent glass hover like giant dices during the day and glow like a light installation at night. These ‘lenses’, as Holl calls them, are the Bloch’s signature image; the technical element that allows filtered light to the underground museum addition. They stay in our minds as objects, and these fragments (in all their contrast, disturbance, surrealism, challenging lightness, intrigue, ‘transition-ness’, neutrality, intimacy, strangeness, disorientation, and underground condition), are a reminder of the duality they represent: they are works of art as objects, and a work of architecture as a place that reveals those works.

Figure 3.17 – The Bloch at night
The most significant aspects from this work of architecture are first, how spatiality and materiality set up atmospheres or moods in relationship with expected desired emotions or feelings from visitors. The senses of strangeness, disorientation, neutrality, and intimacy are further emphasized by the underground interior condition along with glimpses of some exterior world presence. Elements from the lifeworld are completely erased from views, with the only exception of the notion of a sky, materialized by light and shadows from above. Secondly, the Bloch building’s poetics are attuned with the specific goal to provide the visitor with a place that is a very special world like nowhere else. Architecture is never foregrounded, so that the visitor has an intimate engagement with art; nothing is distracting, allowing visitors to be driven by a dynamic force towards art, always, emphasized by the sequence of ramps that descend and slide by each other like a manipulated landscape. Finally, a coherent line of thought and meanings remarkably deepen, from the first contact or approach to the art complex, to the very essence of the interior experience for the visitor. The place was clearly designed for the art lovers’ experience and their expectations (refreshing, thought-provoking, engaging, challenging, etc.), since the Bloch building (in all its contrasting, strange, disturbing, surreal, and intriguing qualities), as a work of architecture, intensifies these attunements.
FINAL REMARKS

Background Summary

The best key ideas that represent the current state, and/or best practices in the field of time perception and the experience in queue lines are:

- Filler activities in queue lines are a good strategy to implement in a project, since they reduce boredom, anxiety levels, and most importantly, time feels shorter so that the waiting experience is less frustrating.

- An individual’s motivation to perform an activity with active participation or interaction will reduce boredom and anxiety levels, and the individual will perceive time as short.

- Sensory stimulation can affect the perception of time as short, making the waiting experience in queue lines a less frustrating one.

- Time perception distortions can improve an experience while individuals lose track of their last time interval reference: they can affect or delay future anticipations, reduce anxiety levels, and allow new time patterns when the multisensory stimuli is experienced for longer intervals of time.

- Multisensory architecture allows individuals to live authentic experiences that give a sense of belonging with their environment through a full bodily
interaction, and therefore, time perception feels short or distorted after long intervals of time.

- Multisensory architecture experiences can be authentic in the full sense of the experience in the present, and when time patterns or cycles adjust to places that we remember or imagine through works of art.

- By taking the experiential effect as a point of departure for the design process, architects are given unlimited freedom to explore new strategies that can potentially elicit effects beyond conventional materials or mediums.

- Terms such as ‘relevant’ or ‘memorable’ are stronger concepts to describe a resulting experience than a ‘better’ one. Furthermore, both descriptions imply that experiences are unforgettable, thus more chances for individuals to re-live the experience again.

- A compelling story is relevant in supporting all theme park elements through a show, because they help to evoke moods and emotions.

- A visitor or guest is fully engaged and is expected to return if a full immersion and entertaining experiences are provided.

- A themed park element is part of a dynamic and continuous system of transitions, which does not contradict or enter in conflict with the show or the guest experience.
• Conceive a project not only as a structure/building, but as a habitable medium, based on the purpose to provide visitors a memorable event. The start point for design could be a raw and bold desired effect.

• Other complementary materials can support a desired effect, such as smart technologies, sounds like music played as a soundtrack in a loop, etc.

• Question new ways to think about architecture that strives to sensory encounters, and explore the boundaries that lie between architecture and non-architecture.

• Spatiality and materiality set up atmospheres or moods in relationship with expected desired emotions or feelings from visitors. In other words, the poetics of a work of architecture should be attuned with the spirit or idea of a place.

• A place should be clearly designed for the visitors’ experience and their expectations, so that the work of architecture satisfies and intensifies these attunements.
THE PROBLEM
Time feels long while queuing, because of boredom and high anxiety levels. The experience turns out to be annoying and frustrating.

PREMISES
Filler activities with active participation are a good strategy to reduce boredom and anxiety levels. People want to get started.

Finite waits feel shorter than uncertain waits.

Sensory stimulation can affect the perception of time as short, making the waiting experience a less frustrating one.

TRANSLATION IN ARCHITECTURAL TERMS
Program of activities and anticipation of what is about to happen

Anticipation as a measurement tool within the line

Spatial anticipation as a sense of progress and certainty with architectural elements/shapes

Memorable experiences based on a bodily interaction with the tectonic language itself; time perception is undetermined

MANAGING BOREDOM AND ANXIETY LEVELS SO TIME FEELS SHORT

Figure 4.1 - Summary of key ideas
THE EXPERIENCE

TIME PERCEPTION DISTORTIONS occur when the stimuli is experienced for a longer interval of time. Individuals lose track of their last interval, affecting or delaying future anticipations.

MULTISENSORY ARCHITECTURE allows individuals to live memorable experiences through a full bodily interaction with space.

By taking the experiential effect as a design driver, architects can potentially elicit effects and evoke moods and emotions. Thus, explore the boundaries that lie between architecture and non-architecture.

SENSORY STIMULI WITHIN A LONGER INTERVAL OF TIME

MULTISENSORY ARCHITECTURE WITHIN A LONGER INTERVAL OF TIME

EXPECT BODILY REACTIONS THRU EVOKING MOODS AND EMOTIONS

ARCHITECTURE CAN CREATE COMPELLING EXPERIENCES TO EVOKE MOODS AND EMOTIONS, IF IT EXPLORES BOUNDARIES FROM OTHER ARTS TO BECOME ONE EXPRESSION

TRANSLATION IN ARCHITECTURAL TERMS

ARCHITECTURE CAN POTENTIALLY EVOKE MOODS AND EMOTIONS AND EXPECT A REACTION BASED ON THE EXPERIENCE ITSELF.

ART INSTALLATIONS/SCULPTURES FREQUENTLY INVOLVE THE AUDIENCE ACTING ON THE WORK OF ART OR THE PIECE RESPONDING TO USERS’ ACTIVITY.

SOMETIMES, THEY USE THE PARTICIPATION OF THE AUDIENCES TO ACTIVATE AND REVEAL THE MEANING OF THE INSTALLATION.
So far, the best key ideas that represent the current state, and/or best practices in
the field of time perception and the experience in queue lines demonstrate that the
general focus is to make audiences/customers/visitors perceive time as short or
distorted, so their experiences while waiting are worth their valuable time. Among the
solutions, to name a few, are motivating activities and anticipation that can manage
boredom and anxiety levels, and to provide multisensory architecture, desired effects,
poetics, to trigger moods and emotions, as the pinnacle of engaging audiences, so their
experiences can be memorable.

Either fast or slow walking throughout a line, best practices that work assume a
constant movement. However, based on observation and while waiting in lines at the
parks, one issue that is overlooked among the above considerations is a particular pace.
The pattern consists of a continuous walk for about five feet and then a stop, which
depending on the length of the line and the overall waiting time, the stop’s duration
varies. Therefore, any of the above practices should be addressed considering this
particular pace, and especially when the line stops, since there is no sense of progress.
As a matter of fact, a design proposal should consider both, continuous movement and
these particular still moments as opportunities for audiences/visitors to take their time to
fully experience, actively engage, participate, and adapt to a changing environment.
TAKE YOUR TIME - THE EXPERIENCE IN WAITING LINES

A SOUTHAMERICAN PAVILION AT EPCOT, UNDERSTOOD AS A CONTINUOUS QUEUE EXHIBIT SPACE. FIRST COME FIRST SERVED, HENCE, PRESERVE THE LINE.

A RAMP SPACE HELPS TO PERCEIVE A FINITE WAIT, SO ANXIETY LEVELS ARE REDUCED. TIME FEELS SHORTER.

THE QUEUE IS AN EXHIBIT SPACE WITH RESTRICTED FREEDOM TO WALK AROUND.

THE FOUR EXHIBIT REGIONS OVERLAP IN A WAY THAT WHEN ONE IS ABOUT TO END, THE NEXT ONE STARTS. ANTICIPATION REDUCES ANXIETY LEVELS. TIME FEELS SHORTER.

EXHIBIT SPACE BOUNDARIES SUPPORT DESIRED EFFECTS.

RATHER THAN THE PHYSICAL REPRODUCTION OF A LANDSCAPE, SOUTHAMERICAN REGIONS ARE ARCHITECTURAL INSPIRATIONS TO RECREATE A MOOD, EMOTION, OR FEELING, BASED ON THE RELATIONSHIP BETWEEN EYE LEVEL AND THE SURROUNDINGS.

SINCE A MULTISENSORY ENGAGING PLACE ALLOWS VISITORS TO FORGET ABOUT TIME, THEN, WHY DON’T THEY BETTER TAKE THEIR REAL TIME TO ENJOY IT?

Figure 5.1 - Concept ideas
**Project Description**

The era of instant gratification has amplified the boredom, anxiety, and frustration of waiting in lines to the point that, soon, merely guiding people through a queue will no longer be tolerable or acceptable. The proposed South American Pavilion at EPCOT, Walt Disney World, will propel visitors along a playful and surreal journey through a continuous queue exhibit ramp space. Visitors will intermittently discover unique elements offering directional guidance and reaffirming a sense of orientation and progress along the queue. This will significantly reduce, if not eliminate, boredom and anxiety. Most importantly, art installations and architecture will fuse into a multisensory sequence of overlapping spaces requiring visitors to take their time, constantly stop, and fully experience, actively engage, participate, and adapt to a changing environment.

**Client and Culture**

*Situating the Architectural Proposal in the Socio-Cultural Environment*

A South American Pavilion at EPCOT, Walt Disney World, understood as a ‘continuous queue line’ exhibit space design proposal, will be a viable architectural idea to solve the problem of a frustrating and aggravating experience in queue lines. The idea of this context specific type of space and explorations of a solution to a problem, came to fruition after a number of consecutive visits to Disney theme parks in the US, specifically Disneyland, California Adventure, both in California, and Walt Disney World in Orlando, Florida. The solution to the problem is appealing for a client like Disney in that, although people having frustrating and annoying experiences while waiting in lines is mostly universal, queue lines at Disney Parks have become a detriment to a ‘magical’ or memorable experience, a significant drawback to The Walt Disney Company’s second most profitable business unit in the entire holding.
The Walt Disney Company, commonly known as Disney, is an American multinational mass media and entertainment company headquartered at the Walt Disney Studios in Burbank, California. It is the world's second largest media conglomerate in terms of revenue, after Comcast. Its mission is to be one of the world's leading producers and providers of entertainment and information. Using their portfolio of brands to differentiate their content, services and consumer products, they seek to develop the most creative, innovative and profitable entertainment experiences and related products in the world.

![Figure 5.2 - Graph of profitability by segments (Forbes, 2014)](image)

According to the graph (Figure 5.2), the media segment accounted for almost half of Disney’s total revenue in 2014. Although associated with classic animated movies, the success is attributed to the company owning other media properties including sports network ESPN and Star Wars maker Lucasfilm as well. While media is the most profitable, Parks and Resorts is the second largest segment for Disney, with a higher revenue growth rate than the company as a whole. The company reported a 7% overall revenue increase for 2014 year over year for total operations, but Parks and Resorts did even better than the company as a whole, with a reported 9% gain year over year. This
growth continued throughout 2015 as visitor numbers rose. With the coming Shanghai Disney opening in 2016, this segment will likely grow even larger in 2016 and beyond.

The first Disney park environment dates back to 1955 with Disneyland in Anaheim, California, conceived by Walt E. Disney as a place where parents and children could both have fun. The execution was delivered by Walt Disney Imagineering Research & Development, Inc. (also known as WDI or simply Imagineering), the design and development arm of The Walt Disney Company, responsible for the creation and construction of theme parks, resort hotels, water parks, shopping centers, sport complexes, attractions, cruise ships, real estate developments, and entertainment venues worldwide.

WDI’s mission is to be positioned as the world’s leading force in immersive family entertainment. It focuses its energy and ideas on creating the most magical places and experiences on earth. Its products are always rooted in story and are designed to inspire the imagination of their guests and build the value of the Disney brand. This mission is heavily supported by values that positions the brand as the world’s leading immersive entertainment business. Some of them are summarized in the following:

*Creative*
- Passion for great story, unmatched attention to detail, and relentless pursuit of extraordinary destination

*Innovative*
- To apply technology to storytelling, to create new experiences, and to challenge convention

*Daring*
- To try what’s new, to take smart risks, and to WOW their guests

*Inspiring*
A commitment to excellence, a culture of persistent optimism, and a pursuit of diverse, provocative ideas

Inquisitive
About their audience, about a project and process innovation, and always asking, why not better?

Enterprising
Always resourceful, energetic about work and ideas, and embracing an entrepreneurial spirit

While WDI creates the “most magical places and experiences on earth”, and as a destination, Disney Parks and Resorts are a display of profitable experiences, creativity, and storytelling worldwide. As I mentioned before, their success is measured by the number of people that yearly visit their parks and resorts (about 116 million visitors last year), so the guest experience becomes their most valuable key measurement of success, and therefore, the problem of the frustrating and annoying experience in queue lines (fig. 5.3) for guests becomes a high priority for the segment.

Figure 5.3 - Waiting line at 8:00 am, Seven Dwarfs Mine Train Roller Coaster, Magic Kingdom, Walt Disney World. September, 2015.
For average successful rides, the waiting time is between 30 to 45 minutes, so the wait is relatively long (compared to a 90-minute wait for Space Mountain ride), but it feels longer because people get bored or anxious. The company is constantly seeking viable solutions to reduce waiting times in line, so some of them, such as the Fast Pass, or the Single Rider Line are successful examples from an Operations/Management point of view, which they don’t necessarily guarantee a memorable experience, since a two minute wait can feel an eternity. Other current solutions focus on entertainment (to address boredom) by including interactive stations while waiting in line (fig. 5.4). Although entertaining, visitors take turns to interact, while others get annoyed because it takes too much time to interact with the station.

In the end, my research topic and design proposal will be very well positioned for Disney Parks and Resorts, not only because the problem of a frustrating experience in a waiting line is a detriment against their guest’s magical and memorable experience, but because the solution from an architectural point of view has not been addressed yet.
Figure 5.4 - Interactive Stations, Seven Dwarfs Mine Train Roller Coaster waiting line, Magic Kingdom, Walt Disney World. September, 2015.
"A THEME PARK ELEMENT IS PART OF A DYNAMIC AND CONTINUOUS SYSTEM, WHICH DOES NOT CONTRADICT OR ENTER IN CONFLICT WITH THE GUEST EXPERIENCE"
BIBLIOGRAPHY


