Multi-sensory and Kinetic Approaches to Installation Art in Outdoor Gardens: A Study of Expert and Non-expert Visitors

Manon Douesnard

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This is to certify that the thesis prepared

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ABSTRACT

Multi-sensory and Kinetic Approaches to Installation Art in Outdoor Gardens: A Study of Expert and Non-expert Visitors

Manon Douesnard

Concordia University, 2013

Installation art is a mainstream and important contemporary art form. Yet installation art is often difficult for museum, gallery and festival visitors to comprehend. Installation art focuses on the multi-sensorial and physical engagement of the visitor. Therefore, it is impossible to access or fully appreciate such works through the use of sight alone. Multi-sensory and physical engagement may help provide new educational strategies relevant to installation art. This research examines art experts and non-experts in a series of three data gathering activities around an outdoor art installation at the International Garden Festival at the Reford Gardens in Métis, Québec, Canada. Video recordings of participants' engagements with the outdoor installation work, interviews, and video elicitation activities provided rich insights into the participants' experiences. They were used to compare the behaviors of expert and non-expert subjects. The findings of this study show that the senses of hearing, taste, smell and touch, as well as physical engagement were essential in order to fully appreciate and understand the installation work. They enhanced participants' experience by providing aural, physical, orientational, spatial, imaginative and interpretative dimensions to expert and non-expert participants' art experience. Differences between experts and non-

experts focused on experts' art training, kinetic compensatory activities and touch repression. The research also highlights the importance of participants' previous knowledge and the value of taking time to explore. While video elicitation was originally intended only as a research procedure it proved to be a particularly valuable tool for both research and learning. As the research unfolded, it became clear that accepted definitions of expert and non-expert museum visitors did not adequately describe the participants' responses in this study. Distinctions between my experts and non-experts were not as clearly demarcated as museum literature would suggest.

ACKNOWLEDGEMENTS

Without significant support, I would not have contemplated starting this ambitious project nor have completed this dissertation. I want to thank members of this expedition team.

Not all thesis supervisors are equal. I have been truly privileged to have Dr. Richard Lachapelle as my thesis advisor. He helped me consider the Reford Garden Festival as a rich and relevant environment for the study of the sensual and kinetic relationship between installation art and its public. He guided each step of this study so that it would be pertinent to my thesis topic and significant to my research goals. His amazing patience and unwavering encouragement were significant in overcoming the obstacles of this research. His knowledge of theoretical and practical aspects of art education research as well as his attention to detail and his capacity for abstract reasoning**,** fuelled and helped my decisions. Other deserving doctoral hopefuls would be extremely lucky to have him as a supervisor.

It would have been foolish to undertake this adventure without an expedition manager. Gary Carroll has been the mastermind organiser of resources, materials engineer, technical supervisor and advisor, videographer, and financial investor in this venture. In addition to all his talents, he fully invested in the success of this enterprise his steadfast belief and his genuine enthusiasm. Our guru incarnate, our

cat Alexandre The Great, was instrumental in showing me that patience and napping are important parts of hard work. Thank you to Therese Morin and Perry Carroll for their understanding, support and comfort.

One of the most important team member of this expedition did not live to witness its completion. Laurel Ladd was my mission to Mars leader. An actual member of NASA Mars Landing Self-sustainable Project, she was my guide extraordinaire to all things of intellect and academia, a life mentor, a sister, and, for a long time, chief editor of this mission. She died from multiple sclerosis and cancer in the final legs of the writing of this dissertation. She is more than sorely missed. Walk in Beauty wherever you are.

I also wish to thank the special friends that assisted me during the period of this research in various and unique ways: the whole Danese-Cianci family for their participation and support, and particularly Marie-Louise Danese and Frank Cianci, for being the best pilot project subjects to navigate the meanderings of installation art appreciation. Thank you to Emily Keenlyside for taking up the position of scout master, for being the much-needed editor with an iron fist in a velvet glove. Thank you to Dr. Nathasha Reid for sharing her knowledge and resources about museum education and for being a supportive, creative and genuine friend and fellow doctoral student. Thank you my friend Annie Lamarre for being a creative bouncing wall.

Thank you to all the participants of this study. Each of you gave generously of your time and insights into your multi-sensory and kinetic experiences with the installation art work. It is your contribution that made possible the findings of this research. Without each and every one of you, this research would not have been possible. Thank you to my committee members Dr. Cathy Mullen, Dr. Lorrie Blair and Dr. David Pariser for their tremendous expertise and support throughout the duration of this project and for their capacity for tough love when it was needed.

I am in debt for the significant contribution Alexander Reford and the team of the International Garden Festival, for the access they gave me to the site and for their innovative and important work with installation and the public of art. You are showing our North American society and beyond how contemporary art sites can be educationally engaging.

Without financial assistance I perhaps would not have ventured into this doctoral research; and perhaps I would not have completed it. Thank you to: the Fonds de Recherche sur la société et la culture from the Government of Québec for a Doctoral Research Fund, the Social Sciences and Humanities Research Council of Canada for a Canada Graduate Scholarship Doctoral Scholarship, and The Graduate Awards Committee of Concordia University for a Doctoral Thesis Completion Award.

DEDICATION

To the possibilities of learning and teaching in sensuous and physical ways which are better suited to more holistic art experiences

TABLE OF CONTENTS

FIGURES

TABLES

CHAPTER 1 INTRODUCTION

Introduction

In this introduction chapter, I will first discuss the purpose of the study and the link between my Master's thesis and my doctoral dissertation. I will then explain the characteristics that define and set apart installation art. I will present the research questions and the definitions of key terms. Finally, the choices of the installation work and study site are justified.

Rationale for the Study and Previous Research

This dissertation endeavours to find new ways to approach, appreciate and understand installation art. It also attempts to find new pedagogical strategies that could be used for learning and teaching about installation art in various educational settings. Because this doctoral study aspires to find new educational approaches and strategies relevant to installation art, it is a continuation of the research I initiated in my Masters' thesis project. In my previous research, some of my participants underwent extraordinary educational transformations with outdoor installation art. These participants were all non-experts who had no professional training in the fine arts. Before I introduced them to installation art for the first time, these participants had experienced extremely negative encounters with similar forms of contemporary art and, therefore, were still extremely reluctant regarding what this kind of art had to offer. In what follows, one of my participants, Nathaniel, describes a past experience with installation art at the Pompidou Center in Paris:

> It was made with clothes. I remember there was a stepladder with a lamp, which had been placed on the stepladder with a rope (…) it was almost ridiculous. And it was in an exhibition! [Author translation].
> (Douesnard, 2005, p. 30)

However, after Nathaniel's encounter with outdoor art installations at the International Symposium of the Derouin Foundation (in the Laurentian forest near Val David, Quebec, Canada) and a day spent with Rene Derouin, the artist who made them, Nathaniel's view of installation art underwent a metamorphosis. After this experience Nathaniel declared about the installation art he had encountered: "Art obviously does not have any limits. It is true research to go further in what you do, in art. Derouin's concept is truly innovative." [Author translation] (Douesnard, 2005, p. 78). There were two main reasons for this dramatic shift in perspective. First, the results of my Masters' study revealed that some participants, in past art viewing experiences, had been confused by the use of non-traditional art materials and were even repulsed by the use of industrial materials for the creation of some installations. In many cases, the resulting confusion and repulsion was strong enough as to prevent them from engaging any further with the works of installation art. One of the conclusions of my Masters' study was that, for the non-expert participants in my study, works of installation art that are set and integrated into a natural environment stand a better chance of being approached and appreciated by the non-expert visitors (Douesnard, 2005). This is because, in comparison with their

previous negative experiences with installation art in which, for example, industrial materials were used, the use of natural materials in a natural environment was inviting and familiar to the participants; it was the most appreciated feature of the participants' experience. Therefore, I decided that this doctoral project would investigate learning using works of installation art that are set in and integrated within the natural settings at the International Festival of Gardens at the Reford Gardens in Métis, Quebec. Secondly, my Masters' study also revealed that my non-experts participants could be helped to comprehend and assess works of installation art when provided with multiple access points for interpreting the works of art. The access points that were identified from my Masters' research were: 1) the contexts, 2) content and, 3) concepts of installation art works, what I now call *The Three C's.* Following this first discovery, I started thinking about whether I could identify more access points to works of installation art. There were two main determinating factors that contributed to my decision to investigate multi-sensorial and kinetic approaches to installation art. The first is that I realized the impact of other forms of art, such as music and poetry, on some of the participants in my Masters' study. Throughout the meandering paths in the forest where the art symposium took place, the artist, Renée Derouin, proposed installations with musical components as well as the display of poetry, which appealed to my participants' imagination. As one of my participants, Chloe, explained: "You use many sensorial perceptions - sound perception, visual perception - which, in my opinion (…) enrich the experience" [author translation] (Douesnard, 2005, p. 77). This comment led to the idea that different types of sensory experiences could lead to different kinds of

understandings related to the installation works. The second determining factor came from my reflection on how installation art often addresses all of our senses as well as our physical bodies in order to reflect the contemporary realities of our lived experiences. Installation artists' works often engage us through not only our sense of sight, but the senses of smell, touch, taste and hearing. These artworks also require that we engage with them physically in kinetic activities such as moving about and within the environments in which they are set, such as forest paths or labyrinths. Therefore, I decided that this doctoral project would explore new approaches to installation art based on the multi-sensory and the physical engagements required by installations. Since my Masters' study involved only participants with no professional experience in the fine arts, I thought that in my doctoral study, I could gain valuable additional information about art engagement, appreciation and understanding from participants who also have professional experience in the fine arts. Therefore, for my doctoral research, I choose to conduct research using both expert and non-expert participants.

Additional motivation for undertaking this study came from research that shows just how difficult it is for art viewers to approach and comprehend contemporary art such as installation art. The production of much installation art is based on theoretical ideas and aesthetic concerns that are largely unknown to non-expert members of the public. Much of the work of artists of the past few decades, which can be labelled postmodern, is "often particularly challenging to the average museum visitor. Postmodern art seeks to dissolve boundaries between art forms,

merge aspects of various styles and cultures, and deconstruct what has come to be the artistic standard of the art world" (Henry, 2010, p. 60). As such, installation art "poses unique challenges to the interpretive process" (p. 60). Previous research has clearly demonstrated that non-expert adults are often greatly challenged by contemporary art (Émond, 1999, p.164). Also, the cognitive and affective conflicts experienced by non-expert viewers of contemporary art forms such as installations have, as their origin, a contradiction between the viewers' perception of their immediate experience and their previous knowledge about art (Lachapelle & Douesnard, 2002, p. 45). Another aspect is that non-expert adults have numerous and persistent preconceived notions about art in general that prevent them from understanding contemporary art, including installation art (Douesnard, 2005, p.72). Thus, most non-expert adult viewers approach a work of installation art, with a set of expectations and are confronted with sets of challenges related to both the form and the content of the artworks. This suggests that most non-expert viewers are ill-prepared to respond to contemporary art forms such as installation art.

Characteristics of Installation Art

Art that Calls for Physically Engaged, Active Participants

I have chosen to discuss the following characteristics of installation art because they define it as an important contemporary art form and because they clarify how installation art differs from other art forms. I have also chosen to discuss these

characteristics of installation art because they are characteristics which are present in *Pomme de parterre*, the work of installation art chosen for use in this study. These inherent features of *Pomme de parterre* are likely to influence participants' experience of it. Installations are an amalgamation of concepts and materials that include a variety of objects, media and technology using space within a place and multi-sensory stimulation to produce a cohesive whole (Jadzinska, 2011, p. 21). As diverse as the results of these combinations can be, installation art comprises characteristics that define it and set it apart from other forms of art. Installation art encompasses: 1) space; 2) time and process; 3) a multiplicity of objects where the relationship between them creates meaning (s); 4) a multiplicity of objects and materials and their symbolic and combined resulting values; 5) sensorial and physical engagement of the viewer who is understood to be part of the creation of its meaning (s).

The development of installation art was influenced by a diversity of fields such as architecture, painting, sculpture, dance, performance, land art, theatre, cinema, and video. This multifaceted development is noticeable in the variety of art works created as installation art within which many of these influences are concurrently visible (Bishop, 2005, p. 8). The large variety of installation art forms is the result of a genesis that goes back to different artistic practices, a diversity that shares one prominent aspect; that of the viewer as an active participant (Jadzinska, 2011, p.22). In her influential work on installation art, *Installation Art: A critical History* (2005),

Claire Bishop focuses on the physically engaged, sensorial viewer as the central focus of installation art:

> Installation art creates a situation into which the viewer physically enters, and insists that you regard this as a singular totality. Installation art therefore differs from traditional media (sculpture, painting, photography, video) in that it addresses the viewer directly as a literal presence in the space. Rather than imagining the viewer as a pair of disembodied eyes that survey the work from a distance, installation art presupposes an embodied viewer whose senses of touch, smell and sound are as heightened as their sense of vision. This insistence on the literal presence for the viewer is arguably the key characteristic of installation art. (Bishop, 2005, p.6)

The development of installation art was also influenced by a series of ideas and movements that have in common the idea of the viewer as an active participant in the work of art. Drouin-Brisebois (2008), Curator of Contemporary Art at the National Gallery of Canada, explains how, as far back as the beginning of the 20th century, the work of Marcel Duchamp (1887-1968) was foundational to installation art (Drouin-Brisebois, 2008, p.34). Drouin-Brisebois contends that the arrival of the museum signalled that art was not just produced for a specific benefactor but for the public, and that artists like Duchamps desired to speak to these viewers (Drouin-

Brisebois, 2008, p.34*).* By introducing readymades[1] in museums, Duchamps was giving credit to the value of the viewers' encounters and opinions about what constitutes art; this was recognition of the significance of the role of the viewer "as an active agent in its realization not as a passive recipient" (Drouin-Brisebois, 2008, p.33-34). Later in the same century, many movements searched for ways to incorporate their work in the social and historical fabric of their time by addressing and involving the viewer:

> Performance art, conceptual art and body art, happenings and early environment [art](…) were born at a time of political turmoil and social upheaval spurred in large part by the Vietmam War and the development of civil rights movements in the United States and abroad. Artists sought for more collaborative ways of working and for new approaches to integrate their works in the social and historical context of the here and now. They began to distance themselves from modernism and to question the nature of art and its role in society. One of the key goals of these diverse movements was to communicate and implicate the viewer in their often dematerialized, ephemeral and intangible creations. (Drouin-Brisebois, p. 35)

Because the physically engaged, sensorial viewer is the central focus of installation art, it is impossible to fully appreciate or access such works through the use of sight alone. Today's contemporary installation artists often concentrate on current

[1] Readymades are found objects that Duchamps signed and introduced as art objects in the museum context, perhaps his most famous an urinal.

aspects of our complex, multilayered, contemporary society and, in doing so, they often address the whole physical, sensorial aspect of their audiences' experiences. As publisher to Linda Weintraub's *Art on the Edge and Over: Searching for Art's Meaning in Contemporary Society,* Ira Shapiro (1996) comments about our encounters with contemporary art in museum and galleries: "We expect to evaluate works almost totally through our visual sense (…). These [contemporary, *over the edge* works of art] are works that cannot possibly be absorbed simply by looking" (Shapiro, publisher's comment, 1996). Respected art critic, co-director of the Museum of Installation in London and writer of *Installation Art in the New Millenium; The empire of the senses,* Nicolas De Oliveira (2004) comments on the appreciation of installation art:

> Experience is mediated through the body: the degree to which our sensory faculties are stimulated is linked to the impact that an experience has on us (…). These shifts [in the postmodern space of the body] mark important changes in the development of installation in recent years, as sensation itself appears to have replaced the traditional art object. (p.49)

Even space itself is no longer just a dimensional place for constructions but it is an assemblage of complete surroundings where things to see, to smell, to hear, and to feel are conceived, created, perfected and arranged for the utmost effect (p.49). Oliveira, concludes that the centre of interest of present-day installation artists lies with "the viewer as a sentient being" (p.53), a person, according to Oxford English

dictionary “able to perceive or feel things” (Sentient, 2004, p.1311). This being is a person who has to use more than sight alone; he is also a person who has to use the senses of touch, smell, taste and hearing to experience a work of installation art. Hopefully, in doing so, a person can appreciate and understand such works of art more fully. As Bishop notes: “ It is worth bearing in mind that many artists turned to installation art precisely through the desire to expand visual experience beyond the two-dimensional, and to provide a more vivid alternative to it” (Bishop, 2005, p. 11).

The Art of Objects and Materials: Multiplicity, Symbolic value, and Temporality

The second most significant characteristic of installation art is that it is formed of a multiplicity of objects that surround and immerse the viewer. This means that an active, physical participation is necessary. The role of the moving, kinetically engaged body is important to installation art because the viewer must enter the work and move within it to attend all parts of the installation. Art critics as well as artists contend that this characteristic differentiates installation art from other forms of art, requiring active physical engagement inside and through the work rather than passive visual observation (Bishop, 2005, p.11). Because installation art is formed of a multiplicity of objects that surround the viewer, it also means that the perspective of the viewer has become multiple and subjective. Having to attend to a multiplicity of objects and materials within and inside a space means that the

traditional perspective of a singular, external object of art has been transformed. Jadzinska (2011), contemporary art conservation theorist explains:

> The response to that [cultural and social changes] has been the emergence of [new forms of] (…) art, multiplying the perspectives and breaking away from the Renaissance model, which considered that there was an ideal place in which art could be appreciated. The relationship between art and its audience underwent reassessment. Traditional art had as its main aim the creation of objects that were in themselves beautiful in order to evoke aesthetic experiences. Conceptualism and the artistic disciplines related to it (installations as well as performance and forms of interactive art) led to dismantling the aesthetic tradition. (p. 24)

Bishop agrees: "Installation art's multiple perspectives are seen to subvert the Renaissance perspective model because they deny the viewer any one ideal place from which to survey the work" (Bishop, 2005, p.13). Because installation is formed of a multiplicity of objects, it denies the viewer of the focus of meaning on a single element, preferring in its place the reflection on a multiplicity of objects and the importance of the relationship of these objects to each other (Ran, 2009, p. 209). These multiple interrelations create the possibility of new interpretations that are more complex and multilayered, broadening the experiences of the viewers and making these concurrent with their contemporary worlds and questioning of their attitudes and beliefs towards them.

Another significant characteristic of installation art is the importance of the representational, symbolic aspect of the objects and materials that are chosen. In installation art, it is not the tangible, material, objective characteristics of the works' objects that are significant, but the information which is entrenched in them. Since the 1920s, an object chosen for art was not considered for its aesthetic characteristics any more but selected instead to represent the artist's ideas (Jadzinska, 2011 p.22). In these circumstances, the purpose of art works became to rouse the viewer to deliberate whether objects are significant on their own or whether they take on richer meanings when juxtaposed to various situations (pp.22-23).

The last important characteristic about installation art that concerns this study is the idea of temporality. Since it is not the objective, material qualities of the installation that are significant but the ideas entrenched in its objects and material, matter is no longer a fundamental aspect of installation; it developed into something unfixed and temporary (p. 22). Jadzinka explains: "Many works of installation art express the idea of temporality, in which the material becomes a medium through which to observe a process (p. 23).

All the situations and ideas promoted by several key events – the advent of the museum's public as new patrons of art, social and political changes, new or emerging art movements – have promoted the creation of installations as a new,

multi-faceted, and complex art form. By the 1990s, these transformations culminated in a situation in which installations were part of the mainstream exhibitions in art galleries and museums: "The story conventionally ends with its apotheosis as the institutionally approved art form par excellence of the 1990s, best seen in the spectacular installations that fill large museums such as the Guggenheim in New York and the Turbine Hall of Tate Modern" (Bishop, 2005, p. 8). The National Gallery of Canada in Ottawa often dedicates large spaces to the deployment of Canadian artists' installations work such as BGL's (Bilodeau, Giguere, Laverdiere) *Artistic Felling II* (2008). The scale and the number of installations have become so important by the beginning of the 21rst century that a large project for deployment and conservation of installation art was undertaken by the original members of the International Network for the Conservation of Contemporary Art (INCCA). INCCA instigated a European project of research called *Inside Installations: Preservation and Presentation of Installation Art*. It took place between 2004 and 2007 with the *Inside Installations* project, a provisional report focussing on the particular characteristics and challenges related to safeguarding key features of installation art such as the the features of the work that facilitate the viewer's active, multi-sensorial participation in these interactive art works (Scholte, 2011, pp. 11-13). Yet, installation art remains fundamentally foreign to a large section of museum, festival, and gallery visitors that don't have specialized education or training in this booming and important field of contemporary art.

The Art of Multi-sensory and Physically Engaged Aesthetic Experiences

Here, a few examples of installations works are briefly described with the goal of initiating the readers to installations that directly address the senses and the physical body of viewers. These artists have chosen, respectively, smell and sound as material features for their installations and physical engagement as a necessity for the creation of meaning of their installation work. In some of their best known works like *Smell and Taste of Things Remain*, 1992, influential American conceptual artists, Kate Ericson and Met Ziegler, used smell as memory triggers for the people who experienced this work. Their intention was to make the visitors aware that our bodies record lots of different sensations and that some of these, like certain smells, may be stored in the memory centres of the brain from which they may later be recovered. In this work, an antique pie cabinet symbolically represents a brain as it is opened to release the memory scents of pies. In her work, *I Really Should… 1000* (2005), multi-disciplinary Canadian artist Kelly Mark uses sound to paint a self-portrait for her listeners. In this sound recording she lists, using an extremely monotone voice, literally one thousand things she should do: these represent the "mind numbingly repetitive tasks of everyday life" (Mark, Kelly, n.d.). To the listener, this becomes like the hidden voice in one's head playing the unending list of things that must be accomplished, which so many of us experience as a droning of growing responsibilities and self-betterment. In her video installation, *La théorie du complot*, 2002, internationally acclaimed Canadian artist, Janet Cardiff, focuses on the physical, kinetic and spatial dimensions of the visitors' experience. Participants in this installation are provided with a video camera with which to view and listen to

the video displayed on its LCD screen. Visitors are instructed to follow architectural clues that directed them to move through the space of the museum. Because the visitors are given visual and audio clues to a possible murder – a little girl pointing at a dead man in a painting, the sound of gunshots – they become witnesses to a fictitious conspiracy and an integral part of the piece.

Research Questions

This study will focus on the use of the senses and on physical engagement in the context of an outdoor art installation. Participants will explore the work of art, answer interview questions about their experience and take part in a video recall activity to reflect and comment on their initial experience. I will use the data of these activities to compare two different groups of participants. The concerns and possibilities brought on by the multi-sensory nature of the viewer's experience as an active participant engaged with installation art are the focus for the formulation of the first research question. The immersive space of installations requires the active physical engagement of viewers; the fact that viewers are presented with a multiplicity of inter-related objects is the focus of the second research question. The need to investigate the similarities and differences in expert and non-expert participants is expressed in both questions.

The questions to be addressed by this doctoral thesis are:

1) In addition to the sense of sight, what role do the senses of touch, hearing, smell and taste play in expert and non-experts' experience in relation to the appreciation and understanding of outdoor installation art?

2) How do physical engagement and kinetic activities play a role in expert and non-experts' appreciation and understanding of outdoor installation art?

Definitions of Key Terms

The key terms and concepts addressed in the doctoral thesis are:

Appreciation: Appreciation is defined as "recognition of the value or significance of something" (Appreciation, 2004, p.64).

Experience: This term is understood to mean "practical contact with and observation of facts or events" (Experience, 2004, p. 501).

Kinetic: In the context of this research, the participants may move through, around, and within the site of the chosen artwork, which takes the form of an outdoor installation. So, to simplify the analysis of my participants' responses to the work of art, I have chosen to regard all physical movements within the single category of kinetic activities, with the term kinetic meaning "relating to or resulting from motion" (Kinetic, 2004, p.793).

Perception: Sense perception can be described as "the use of our senses to acquire information about the world around us and to become acquainted with objects, events, and their features. Traditionally, there are taken to be five senses: sight, touch, hearing, smell, taste" (Martin, M. G. F., 1998, p. 287). But now "according to

scientific estimates, human beings possess not five but as many as seventeen different senses. Many of these sensory modalities have been discovered in what was formerly the field of touch, one example being the kinaesthetic sense (…) is the awareness of movements of muscles, tendons, and joints. Were it not for this sense, human beings would not be able to move about or dance" (Howes, 1999, p. 145). Even though there is scientific evidence to a plurality of senses over and above the traditional senses of sight, hearing, taste, smell and touch I have chosen to work with these five senses to simplify the analysis and the discussion of findings.

Expert: For the purposes of this study experts are " defined as those informants who had professional university training in the visual arts and/or were involved in careers where such training was an entry level requirement" (Lachapelle, 1999, p. 62). I also considered participants who had a B.A. in related fields such as: art history, architecture, design, or art education.

Non-expert: Non-experts are considered "persons who have no university-level professional training in fine arts. This definition does not exclude the possibility that some(…) may have visited museums before or enrolled in introductory-level studio or art history courses (in school or elsewhere)"(Lachapelle, Douesnard, Keenlyside, 2009, p. 248)

The Chosen Work of Art: *Pomme de parterre*

Visual documentation

The work of art chosen for this study is called *Pomme de parterre* (2007) and was created by Iarocci, Ironside and Ross. It is an outdoor installation on a lot measuring

Figure 1: View of the installation site showing different species of heirloom potato plants and the wooden pathways surrounding and leading down a few steps to the central potato shed. (Photo by Douesnard, 2008 used with written permission of Reford Gardens.)

Figure 2: View from inside the potato shed. This underground storage chamber is accessible from two separate doors, one at the western side of the site and one at the eastern side. It houses a energy cell made of 1,000 potatoes. All of the potatoes are interconnected to augment voltage and amperage. The electricity produced is converted directly to sound waves emitted through small speakers and ambient light appearing in glass jars; both are located under the bottom row of potatoes. (Photo by Douesnard, 2008 used with written permission of Reford Gardens.)

Figure 3: Plan of the entire site of the installation, complete with two access paths, potato plant garden and central potato battery storage chamber. The large ovals represent permanent trees on the installation site. (Plan by Iarocci, Ironside and Ross, 2007, used with written permission of Reford Gardens)

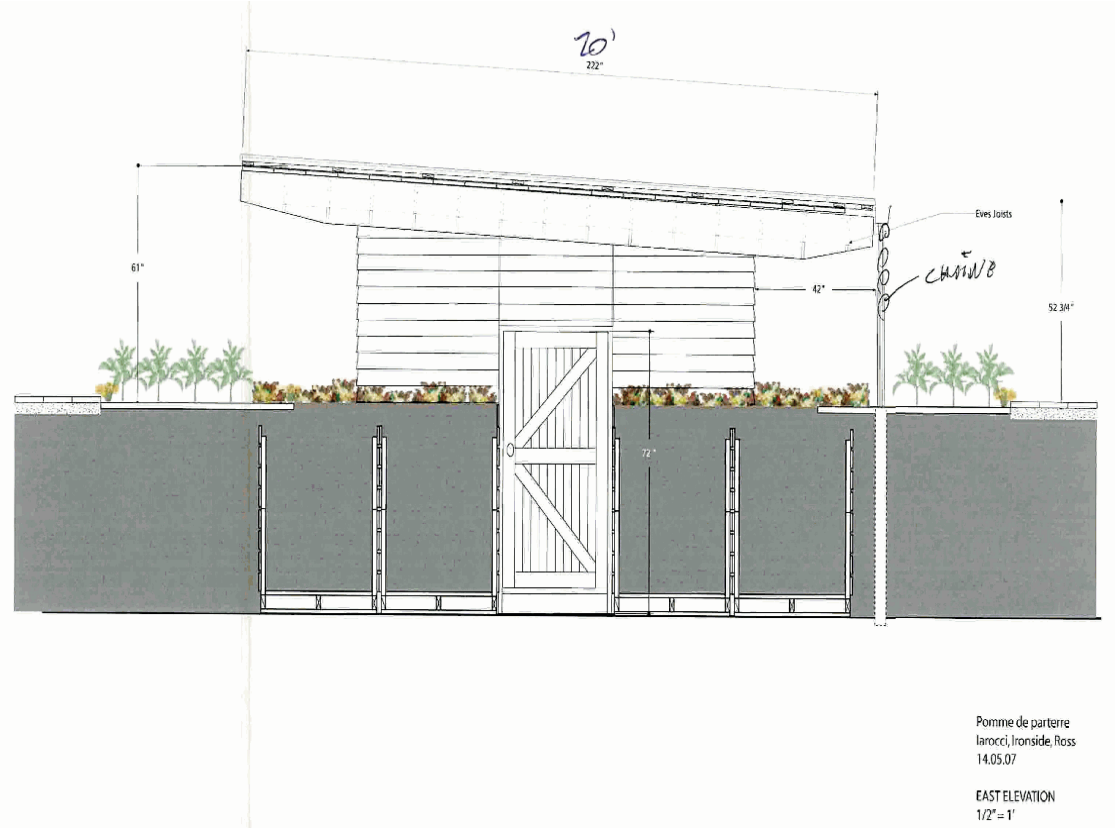

Figure 4: This cross sectional view shows the depth of the cellar in the ground. Stairs from the paths on the ground level enable access to the entrance of the shed through doors on either side. (Plan by Iarocci, Ironside and Ross, 2007, used with written permission of Reford Gardens).

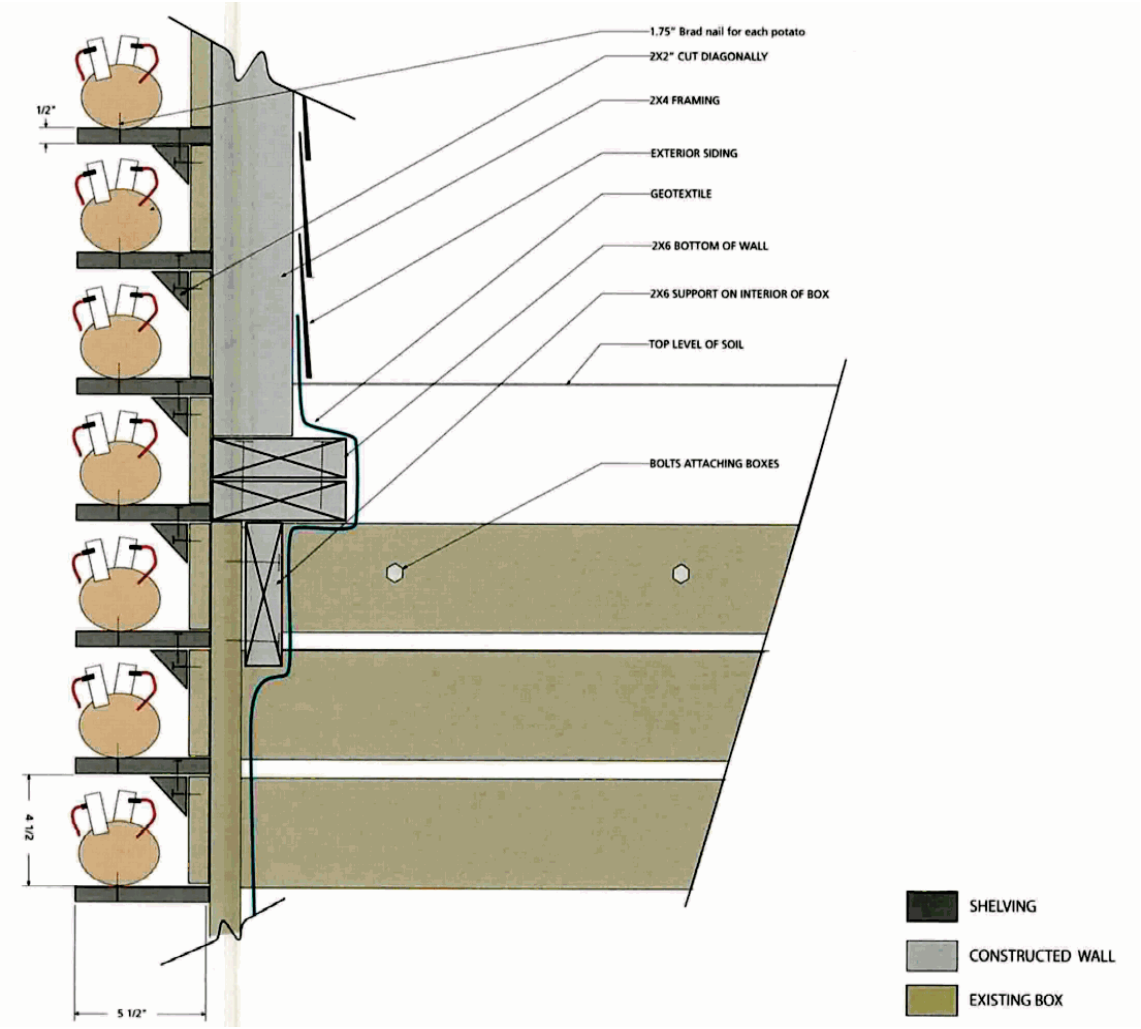

Figure 5: A cross-sectional detail view that shows how each potato is held in place by a braided nail. This plan also indicates the top level of soil outside of the exterior wall. (Plan by Iarocci, Ironside and Ross, 2007, used with written permission of Reford Gardens).

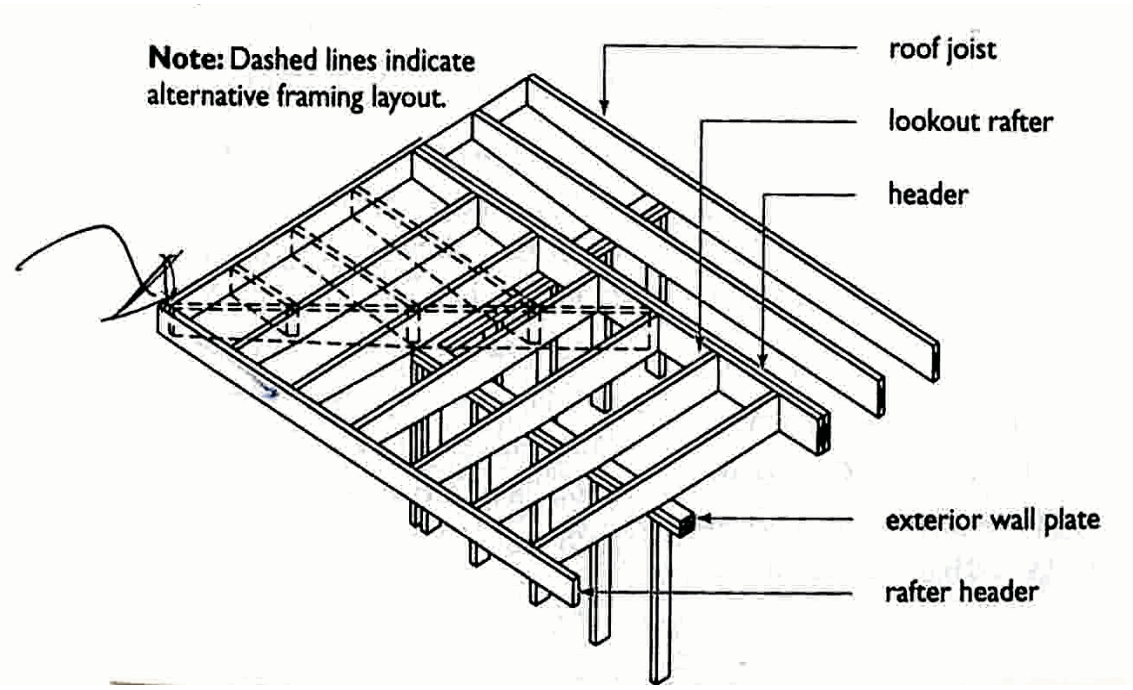

Figure 6: A detailed plan of the roof of the shed that shows the open latticed wood work. The lattice allows for air circulation and for sound to drift out from the interior. (Plan by Iarocci, Ironside and Ross, 2007, used with written permission of Reford Gardens.)

40' by 60' and was presented at the International Garden Festival at the Reford Gardens in Rimouski, Québec [2] from 2007 to 2010. In this section, after presenting the visual documentation of the work, I discuss the reasons for choosing *Pomme de parterre* for this study and why it exemplifies a work of installation art.

Selection of an Installation for the study

One year before I was due to commence the on-site research, I went to the Reford Gardens' 2007 International Gardens Festival to choose the most suitable work of art for my research. The characteristics I was looking for in an outdoor installation were the ones closest to the needs of this study. That is to say, I was seeking out a work that would not only focus on the use of the sense of sight but that would also solicit the senses of smell, touch, hearing, and taste as well as physically engage my future participants. There were many works inviting these kinds of experiences. For example, the work *Core Sample* (2006) by North Design Office invited members of the public to walk amongst a broad path and to touch both the soft mounds of grass and the stem-like core samples. *Eucalyptus Lost* (2006) by Taylor, Cullity and Lethlean Landscape Architects had speakers imbedded in log-type benches that whispered sounds and invited visitors to stroll among large gravelled walkways dotted with sculptures. *Le jardin des Hespérides* (2006) by Andy Cao and Xavier Perrot aroused the sense of smell with its orange trees and the sense of hearing and touch with its small water fountain. But of all the works of art on display, *Pomme de parterre* (Iarocci, Ironside and Ross), by far, had the most qualities in terms of sense

[2] For 360 degree views the outside grounds and interior of shed www.jardinsmetis.com/english/festival/garden-1-pomme-de-parterre.php?EC=1

arousal and physical interaction. First of all, its labyrinth-like design was impossible to resist; one could not help but walk in all directions to see where one would end up. Also, the work included steps to go down and then through a door leading inside the potato shed, a walk-in potato battery with more steps leading back up to the ground level of the potato garden. Once inside the shed, one was completely enclosed and surrounded. There was very little light; it trickled in through the rafters. This low-level light diminished the sense of sight and enhanced the senses of smell, hearing and touch. The thousand potatoes that were stored in the shed and used to produce electricity had to remain on display in the same place for weeks on end and thus their gradual decay provided ample stimulation for the nose. The electricity produced by the potatoes was converted directly to a sound wave and resulted into buzzing noises of various different pitches. Because one was in the dark and enclosed, the sound and feel of our feet on the gravel was heightened. When the eyes adjusted to the dark, one could distinguish small lights that sparkled in glass jars and the visually stunning arrangements of the potatoes on shelves along the walls. Outside, at the entrance to the shed were rows of edible flowers. Last, a final determining factor in my selection of this installation was that this ephemeral work was scheduled to be on display for two years in a row. Therefore, it would be available again for my study participants to visit in the summer of 2008.

Pomme de Parterre: A Work of Installation Art

If one only looks at the exterior display of *Pomme de parterre,* one could be tempted to think that it is just a garden. But when we consider how the whole site, including

the interior of the potato shed, was conceived and built, it is clear that is was made to be explored and experienced as a work of installation art. *Pomme de parterre* fits with installation specialist De Oliviera's definition of a contemporary installation where "sensation itself appears to have replaced the traditional art object" (2004, p.49). It also fits well with influential author Bishop's key characteristic of installation as having for a focus "an embodied viewer whose senses of touch, smell and sound are as heightened as their sense of vision" (Bishop, 2005, p. 6). *Pomme de parterre* not only provides a variety of visuals, sounds and smells, it invites the visitors to touch a variety of textures and even to taste its edible flowers. Other important characteristics of installation art are that it encloses and physically engages the viewer. *Pomme de parterre* immerses visitors in its stunning underground shed enclosing them in the process. This installation proposes a variety of ways to physically engage the viewer; these include meandering its labyrinths, footpaths, passages, stairs and doorways. Another characteristic of installation art is that it proposes not a single element to focus on but, rather, a multiplicity of items and their interrelationships for consideration. In the case of *Pomme de parterre,* meaning is created by the contrast of neighbouring elements: the live vegetation and decomposing potatoes, the light outside the shed and the dark interior inside the shed, the freedom of movement on the outside paths and the tight confinement of the shed's inside. Another distinguishing feature of installation art is that it favours the consideration of a variety of points of view instead of single one. *Pomme de parterre* provides a variety of positions and places from which to experience all of the various components that compose it. Pathways have been

intentionally designed so that visitors can discover all of the elements of the work from as many points of view possible. The structure of the shed provides a niche under the open latticed woodwork on the sides of the roof from which to hear, see, touch, smell and view from the outside, the inside of the potato shed. It provides different heights and distances from which to experience the multiple items of the installation including sounds, smells, sights, tastes or textures as encountered from a variety of physical positions and situations. Another trait of installation art is the importance of the representational, symbolic aspect of the objects or materials with which the work of art is made. The choice of the potato as one of the main elements of the installation is meant for the visitors to consider alternative, organic, green sources of energy and to realize that even a small and lowly vegetable can participate in this endeavour. The choice of a thousand potatoes to comprise the potato battery represents the average amount of potatoes a Canadian family consumes a year (Reford Gardens, 2013 a). Finally, the fact that potato plants, and several blooms were chosen as the installation's materials is a good example of how a work of installation art can articulate the concept of temporality. To express the concept of temporality, the material of the potato plant and other blooms was chosen as a means through which to experience a transformation. When visiting *Pomme de parterre*, visitors to the site will have unique experiences depending on which time of the growing season they visit – whether, in early spring, only tentative sprouts can be seen or, in full summer, mature foliage occupies the garden plots of the installation (Reford Gardens, 2013 a). For sceptics who would challenge the artistic legitimacy of this installation as a work of art, it is important to note that

this work is presented in a way that is museographic, with an extended label at the entrance of the site presenting the work and a proposed path of exploration including both an entrance and an exit.

Description of The Installation Pomme de parterre

The following description was displayed as an extended label on a pedestal at the entrance of the site of the work *Pomme de parterre*. Participants in the study were given the opportunity to read this information, but only after they visited the site. The impact of the following information is discussed in the results of the study:

> Inspired by grade school science experiments, *Pomme de parterre* involves harnessing the latent energy of potatoes to produce a visual and aural environment within a specially designed underground chamber located within a potato patch. The formal parterre garden is planted with sixteen different varieties of potatoes. In the centre of the parterre is a chamber/root cellar housing a potato battery made of approximately 1,000 potatoes (the number an average Canadian family consumes annually). The electricity produced by the potatoes is converted into a sonic signal and then broadcast as a variable drone inside the chamber. The resulting effect is the translated sound of 1,000 potatoes. (Reford Gardens, 2013 a)

Pomme de parterre is the collaborative creation of three people Angela Iarocci, Claire Ironside and David Ross. Claire Ironside and Angela Iarocci, work from

Toronto and cooperate with each other on creative projects constructing experiences and communications employing matter, space and visualizations based on data (Reford Gardens, 2013 b) . David K. Ross is a visual artist who works from Montreal. He is involved in installation work that uses photography and film (Reford Gardens, 2013 b).

Site of Research: Reford Gardens Festival

The site I chose for my study is where *Pomme de parterre* was presented: the International Garden Festival at the Reford Gardens in Métis, Québec, Canada. The first edition of the International Garden Festival was launched in the year 2000. This followed several years of major construction intended to transform unused parts of the site into a venue for contemporary, ephemeral gardens that would be designed by an international community of artists and designers. Each year, in this natural, outdoor setting, renowned artists and designers invent outdoor installations as a form of living laboratory. Since 2000, more than 50 gardens were created by hundreds of designers and artists from different countries. In addition, temporary exhibitions were created outside of the site such as parks and gardens in Montreal, Amqui, New Richmond, Toronto, as well as in England, France and Italy. This bank of artworks shows the diversity and creativity of a new generation of artists, architects, and designers (Reford Gardens, 2013 c).

There were two main reasons that guided my decision to use the Festival at Reford Gardens as the site for my doctoral research. Many viewers are ill-prepared to encounter or respond to installation art. My previous research (Douesnard, 2005) suggests that installation works of art that are integrated in a natural environment stand a better chance of being approached and appreciated, at least by non-expert visitors. So, the first reason for choosing the Festival as my site of research is that the curators of the Festival have used natural settings as well as natural elements of gardens as a strategy to facilitate the public's encounter with the works of art. Nature in general and gardens in particular, make the journey into the world of contemporary art more easily accessible: "Contemporary gardens profit from the inherent approachability of all gardens, encouraging more hesitant visitors to embark on unfamiliar experiences and engage with ideas they might otherwise have ignored or even avoided" (Johnstone, 2007, p.9). The second reason for my choice of Reford Gardens as a research site is that the curatorial team of the Festival adheres to an installation art philosophy and practice in which the visitor is regarded as an active participant. Gardens are consistently chosen that:

> encourage, or even require, visitor participation. Interactive structures, programs that invite visitors to participate and elements that recall playgrounds have been regular features (…). The chosen gardens state very clearly that their entire being is dependent on the relationship of visitors and explicitly declare that their fundamental nature rests in their experience. (Johnstone, 2007, p. 57)

Chapter Summary

In this chapter, I explained the purpose that is behind this study: to find new approaches for the appreciation and understanding of installation art as well as uncover new pedagogical strategies that could be used for teaching and learning about installation art. I also discussed the journey, with its similarities and differences that lead me from my Master's thesis research to my doctoral dissertation. In doing so, I was able to highlight the importance of the natural environment as productive venue learning about installations and, further on, to emphasize the importance of choosing an outdoor installation in a garden festival. I also highlighted how and why I chose multi-sensory and physical engagement as the key features of my intended approach to art installation. I explained the decision to avail myself of unfettered experiences of novice participants as well as the expertises of participants who have specialized education in the fine arts. I presented the research questions and the definitions of the key terms of this study. I discussed key characteristics of installation art, which define it and set it apart from other art forms. The multi-sensory and physically engaged viewer must be an active participant in installation art. It is impossible to fully appreciate or access such works of art by using only the sense of sight and active participation must replace passive contemplation in order to fully understand and appreciate installation art. Since installation art is constructed of a multiplicity of objects that immerse the viewer, it alters the perspective of the viewer in favour of a multiple and subjective

point of view. In this way, installation art denies the viewer a unique "perfect" place of observation and thereby creates the need for a consideration of the multiplicity of the work's components and the relationship among them. The materials and objects used in installations are in essence symbolic; they are chosen to represent ideas which are embedded in them. The materials and objects of installation art articulate the concept of the ephemeral and are used so that people can experience a process. Installation art is now a mainstream artistic practice and features prominently in festivals, galleries and museums. Yet, this significant domain of contemporary art remains essentially misunderstood to many untrained visitors. In the next chapter, I present a review of the literature as it pertains to the interests of this dissertation.

CHAPTER 2 LITERATURE REVIEW

Introduction

In the first chapter, I highlighted how much of installation art is problematic for many as it addresses and requires specialized knowledge that is often based in conceptual approaches, which are not familiar to the public at large. I also discussed how installation art addresses all of our senses, requires physical engagement, and provides new avenues of exploration for understanding and appreciating art. In this way, our sensorial perceptions and body engagement may represent other ways of knowing based on the individual's construction of knowledge through personal experience. Because of this specific context, my research operates within the paradigm that knowledge is individually constructed through experience and through multiple ways of knowing. In this chapter, I will first bring to light the historical context which has led Western thought to favor sight over the other senses as ways of knowing and learning and to diminish the importance of the senses other than sight. I will then discuss how my research situates itself within an active constructivist, experience-based, model of knowledge. Furthermore, I will argue that prior knowledge, as well as primary, sensorial and physical experience is useful for the construction of knowledge about installation art. To this end, I will look at theories, as well as research and practices which have informed these topics in the field of education, museum education and art education. It is my goal that the historical context, together with the related theories and research, will support my

research about multiple ways of learning through multi-sensory modes and active physical engagement.

Diminished Importance of Some Senses

Diverse senses offer different advantages to the shaping of knowledge (Duncum, 2012, p. 186). However, Western thought has traditionally privileged sight over the other senses as sight was (and still is) associated with reason and intelligence. We have long honoured sight as the preferred sense for gathering knowledge-related information and in doing so have discriminated against other senses (smell, taste, hearing, touch, and the physical body) as ways of knowing. Before looking at other studies in the fields of education, museum education and art education, I will briefly look into the history of Western thought as it pertains to the diminution of the importance of the senses of smell, hearing, taste and touch and of the physical body in learning so that we better understand the challenges facing teaching about installation art.

Why has the sense of sight such a privileged relationship to art appreciation? Why have the other senses been so little engaged in art appreciation? Visual art is obviously constructed around a visual experience but visual phenomena are only part of this experience. This is even truer for installation art, whose appreciation clearly brings together the experiencing of multiple senses and physical activity. The

fact that sight enjoys a privileged status in relation to knowledge, and that, consequently, the other senses have been neglected as ways of knowing continues a traditional, long-held Western belief. A related idea, the division of mind and body, also has a long history in Western thinking (Bresler, 2004; Hooper-Greenhill 2004, Hubard, 2007). Since Descartes (1596 – 1650), the Western world has adhered to the belief that knowledge was to be gained intellectually using principally the mind rather than through the use of our bodies (Hubard, 2007, p. 47). The consequence of this belief was the separation of mind and body, and it has had tremendous implications: "this binary split acted to structure the landscape of Western thought and experience" (Hooper-Greenhill, 2004, p. 559). In this scission, sight became associated with the mind, while the senses associated to the body were somewhat relegated to a lesser order. "With the mind and body regarded as separate, sight was associated with the mind, with reason, rationality, and logic" (Duncum, 2012, p.184).

Hooper-Greenhill reminds us that, the first public spaces for the engagement of art, the modern museums, were created during the En*light*enment [emphasis added] (Hooper-Greenhill, 2004, p.559), a time when sight was championed over the other senses. This was a time when:

> Learning in the gallery was thought to involve the highest form of thinking, the exercise of the consciousness, cognition, while the body was seen as a source of pollution and the use of the senses as a lower form of knowing. The sublimation of the body to the mind was a constant theme during the modern

> age, where asceticism and bodily restraint were both religious and social virtues." (Hooper-Greenhill, 2007a, p. 374)

Even before the Enlightenment, in Western culture, sight and cognition have enjoyed a long history of association. In Western culture, the very meaning of sight is attached to that of understanding: "'Idea' derives from the Greek verb meaning 'to see'. This lexical etymology reminds us that the way that we think about the way that we think in Western culture is guided by a visual paradigm. Looking, seeing and knowing have become perilously intertwined" (Jenks, 1995, p. 1). Plato (c. 428-348 BC) distrusted vision because of its fallibility to be an accurate source of information; yet, he proclaimed vision as the sense most beneficial to human kind (Duncum, 2012, p.184). The authority of sight over other senses continued during the "Beatific Vision" of Christianity (Synnott, 1999, p.68). Hooper-Greenhill suggests that the Western part of the world was transformed from an aural culture to a sight-prevalent one with the invention of the printing press (Hooper-Greenhill, 2000, p.113). Sight dominated the centrality of the intellect during the Enlightenment. Vision and cognition were ever more closely equated during the Enlightenment because of the fact that sight can function from a greater distance than the other senses and was therefore judged to be more objective (Duncum, 2012, p.184). Vision and cognition are still so strongly intertwined that the use, in English, of the expression "I see" is equated to the meaning " I understand"; in French, the expression "je vois" [I see], also means "je comprends" [I understand]; in Italian, "vedo" [I see], also means "comprendo" [I understand].

Throughout the West, the senses have been historically and culturally hierarchised. For example, the Aristotelian (BC 384 to BC 322) hierarchical order of the senses had at its highest point, for humans, sight, then hearing, and then smell. Taste and touch did not even belong to the human realm; they belonged to the animal realm, with taste at a higher rank followed by touch (Synnott, 1991, p.65). For religious, social and cultural reasons, the hierarchy within the sensorium[3] has varied over time and place. Senses as forms of knowing "were hierarchically ordered in terms of their importance to knowledge" (Duncum, 2012, p. 183). Since the Enlightenment, sight has been positioned ahead of the other senses and equated to knowledge and objectivity:

> By contrast, taste, touch, and smell were associated with the body as the source of unreason, the emotions, and irrationality (…). The sensuous knowledge gained through the proximal senses of taste, touch and smell was often exoticized as primitive and non-Western, or devalued as childish or feminine (Duncum, 2012, p. 184).

Touch and smell (along with emotions) were set aside in the pursuit of an efficient and universally truthful scientific knowledge; in effect, attempts were make to dislocate the mind from the body and its unreliable responses (Hooper-Greenhill, 2000, p.112). From the late 1700s, knowledge in museums was to be gained by the use of sight alone (Hooper-Greenhill, 2007b, p.190) because sight was thought to

[3] All the senses considered as a whole.

possess a direct link to the mind (p. 191). Furthermore: "Education in museums was expected to be achieved through exhibition and display, where to look was to learn (…). Looking itself was expected to be dispassionate, rational and objective" (Hooper-Greenhill 2007a, p.370). In learning with the fine arts, the enduring Western philosophical stance that mind and body are disconnected units continued: abstraction from the body was seen as desirable as the body was a less dependable pathway to learning (Hooper-Greenhill, 2007b, p. 191).

Notwithstanding sight's historical, philosophical and cultural importance to cognition, there are also important physiological aspects that support the claim of sight's importance over the other senses: "there is evidence of the fiber distribution of the senses in the central nervous system. Approximately 100,000 fibers convey information to the brain from each eye, only about 30,000 do so from each ear (cochlea), which points to sight being the dominant sense" (Howes, 1999, p. 146) and "70% of human brains – more than all the other senses combined – are devoted to vision" (Dumcum, 2012, p. 185). For all these reasons, sight turned into the prevailing and ruling sense and sight and supervision were appointed as a vital characteristic of masculinity (Hooper-Greenhill, 2000, p.112). This suppressive patriarchal tenent is not obsolete (…) but it is now believed that the severance between intellect and affect and between brain and body as means for understanding is fictitious (Hooper-Greenhill, 2007a, p.372). Although much has changed in education since Descartes and the Enlightenment, throughout schools and universities, approaches to learning often remain a mostly intellectual affair

and encourages silence and immobility. Silent contemplation remains the prescriptive approach to art appreciation in many art museums and galleries.

Theories of Learning and Theories of Knowledge

In his respected book on education in museums, *Learning in the Museum*, Hein (1998) explains how theories of learning can be arranged on a continuum with opposite positions situated at each end (Hein, 2006, p 345). On one extreme are the theories that believe learning to be passive and on the other, the theories that posit learning to be active (Hein, 2006, p.345). In passive learning, the mind is a receiver of sensations that are simply cataloged, while at the other extreme, active learning is seen as "active engagement of the mind with the external world" (p. 345) where the learner acquires knowledge by assessing and acting upon with the outside reality. Passive learning is also known as transmission-absorption learning. Here, learning is thought of in terms of the addition of small units of knowledge to a stockroom (Hein, 1998, p. 21). Active learning is also called constructive learning. This position is the result of the work, among others, of Dewey, Piaget and Vygotsy and represents much of the latest educational theory (p. 22). At the heart of this position is the concept that the learner is an active participant in the building of knowledge and that learning is not a simple accumulation of components of knowledge but a " transformation of schemas in which the learner plays an active role and which involves making sense out of a range of phenomena presented to the mind" (p.22).

The cumulative research of the last hundred years has concluded in nearly unanimous accord that learning is an active procedure that demands engagement and that learning is influenced by past experience, by learners' environment, and his or her way of life (Hein, 2006, p. 345).

> Our beliefs about the nature of knowledge, our epistemology, profoundly influence our approach to education (…). [Either] Knowledge exists independently of the learner or knowledge consists only of ideas constructed in the mind. (Hein, 1994, p.73)

Theories of knowledge can also be situated along a continuum (Hein, 1998, p.17). Theories of knowledge are interested in whether learning involves seeking truths about nature or building knowledge through personal experience (Hein, 2006, p.345). So, at one end of the epistemological continuum, knowledge is understood to exist externally and independently from the human mind and truth exists in the reality of the natural world. At the other end, knowledge is understood to be constructed in the mind of humans, not exist externally in nature and, therefore, not expressible as laws of nature (Hein, 1998, p. 17). This second type of knowledge is held to be true for people who acknowledge its existence (Hein, 2006, p.345).

Perhaps the best example of an experience-based theory of knowledge in education is provided by John Dewey (1929-1988), who advocated that experience is at the center of the learning (Dewey, 1980). Dewey also advocated for the idea that

knowledge is actively constructed, as opposed to the passive reception of knowledge (Dewey, 1980) and, in this way, Dewey was a forerunner of the concept of constructivism .

Constructivism is an important educational theory. Hein proposes that constructivist learning consists of two main aspects (Hein, 1998, p.34). The first component is that learning requires the active contribution of the learner: "Therefore, the constructivist classroom or exhibition includes ways for learner to use both their hands and minds, to interact with the world, to manipulate it, to reach conclusions, experiment, and increase their understanding" (p.34). Although active participation is a major characteristic of constructivism, constructivist learning requires more than just hands-on activities. I agree with Hein that "monotonous repetitive physical activity, or "mindless" actions are not particularly conducive to mental changes (…) and recent literature has stressed the need for 'minds-on' as well as 'hands-on' engagement by learners" (Hein, 1998, p.31). Similarly, physical, bodily immersion had been shown to engage mental activities (Hooper-Greenhill, 2007b, p.173).

The second component of constructivist learning according to Hein concerns the validity of the conclusions attained by the learner. These conclusions should not be validated by exterior standards of truth, objective and separate from the learner but by standards of truth "within the constructed reality of the learner" (p. 34). Another important aspect of constructivism is that it privileges the importance of prior

experience and prior knowledge in the construction of new knowledge. That learning begins with past knowledge and experience is well supported by the museum education and education research literature (Falk and Dierking, 1992, 2000; Hooper-Greenhill, 2004; Hein, 1998; Henry, 2010; Rochelle, 2012). Constructivism is now considered a significant approach in academic theories of learning in current education:

> Constructivism, the belief that knowledge and understanding are constructed by individuals based on their existing knowledge and previous experience, is an important theoretical approach to learning in contemporary education. Museum educators have begun to recognize its relevance to their work. (Henry, 2010, p.50)

From a Transmission to a Constructivist Model of Learning

Research and practice in museum education have shed much light on museum visitors' learning. In the last 40 years or so, museum education has transitioned from a transmission model of learning to a model where the individuals construct their own learning. Falk and Dierking (1992) and Hooper-Greenhill (2004), both highly respected museum education researchers, argue that this transformation is quite recent and that it is due to increased expectations as regards museums as public institutions of learning. Until recently, American museums were funded

mostly by private donors but today much of the money that supports American museums comes from public funding and corporations, both of which demand more accountability regarding the ways funding supports the educational function of the museum (Falk & Dierking 1992). Henry (2010), who is concerned with museum visitor's engagement, describes in *The Museum Experience*, these establishments' transformation from deciders of taste and power holders to visitors' partners in learning (p. 11). Indeed, for most of their past, art museums considered themselves as the repositories of expert knowledge, while visitors were considered passive recipients of this knowledge (p.11). In the present day however, the content of knowledge and the means to convey it have changed. Knowledge was once conceived as universal and rational, and was "packaged" to be transferred without undergoing any significant transformation (Hooper-Greenhill, 2007a, p. 368). During the modernist era domains of knowledge were created that supposedly presented universal impartial truths based on reason: it was the responsibility of educational organizations to convey this standard of knowledge through sanctioned programs (Hooper-Greenhill, 2007a, p. 370). Museums were part of the social structure where this kind of knowledge was produced and conveyed in such a manner that they meant, hypothetically, that this knowledge could be absorbed by everyone (p. 370). Education in museums was understood to operate through a showcase and presentation approach (p. 370). "Education in the modernist museum thus included the laying out of objects in disciplinary taxonomies and also the shaping of disciplined (or civilized) attitudes, values and behaviors" (p. 370). The educational functions of museums could only be considered in abstract terms for a

universal public, which, although recognized as different, was understood as one single homogenous group (p. 370).

Today, knowledge is understood from a different perspective where knowledge is constructed *with* the visitors (Henry, 2010, p. 12). Hooper-Greenhill (2007a) explains:

> At the present time, the idea of universal knowledge that is true, objective and verifiable is no longer tenable [….] A single unified objective explanation of the world (…) has been exposed as the embodiment of a limited Eurocentric masculinist perspective [….] Knowledge is now understood as perspectival rather than universal. Interpretive philosophical frameworks have shown how beliefs are tied in to location in history, culture and geography through family, community, upbringing and personal biography. Forms of knowing have multiplied. (p.371)

Experience is now viewed as the basic material of learning. The learner's daily world is transformed into a learning setting. Learning is now thought of as interpretive, unlimited, with attention focused on individuality, diverse intelligences and learning preferences (p. 372).

Multiple Ways of Knowing

Falk and Dierking's research is valued, amongst other things, for highlighting that individual learning in museums is influenced by several factors related to their construction of knowledge. In *The Museum Experience* (1992), Falk and Dierking present a model, "The Interactive-Experience Model", in which learning is conceptualized as the intersection of three contexts: "The visitor's museum experience is not just the result of interactions with exhibits but the sum of his constructed personal, social, and physical contexts"(p. 55). Falk and Dierking take into account a multitude of learning contexts and, in doing so, they account for the many possible conditions under which learning can occur.

Howard Gardner is regarded for his Theory of Multiple Intelligences (1983) in which he posits the existence of several intelligences[4] each of which includes several perceptual and physical dimensions. In *Multiple Intelligences: New Horizons* (2006), an updated version of his original publication, Gardner establishes that there are two intelligences which are most recognized and valued in Western society. First, linguistic intelligence, consists of a set of skills found, for example, in people who can write poetry or have an oratory gift. The second intelligence most prized in the Western tradition is logical-mathematic intelligence which is defined by rational

[4] "An intelligence entails the ability to solve problems or fashion products that are of consequence in a particular cultural setting or community (...) MI theory is framed in light of the biological origins of each problem-solving skill. Only those skills that are universal to the human species are considered" (Gardner, 2006, p. 7).

and scientific aptitude. The existence of several other intelligences is posited by Gardner. These other intelligences include interpersonal intelligence, intrapersonal intelligence, spatial, musical and bodily-kinaesthetic intelligence. Interpersonal intelligence is the ability to get along and function with other people, while intrapersonal intelligence relates to the understanding of self. These aforementioned intelligences may all be in some ways useful for the appreciation and understanding of installation art, but the intelligences which may be most relevant to my study, are the intelligences Gardner identifies as spatial, musical and bodily-kinaesthetic. Spatial intelligence is seen as the ability to produce abstract representations of a reality and to use these to function in a spatial universe. In my study, for example, participants working from a map of the installation *Pomme de parterre* might try to use the map to plan their way around in a spatial universe that they have never entered before. Musical intelligence refers to people who have a sense of tonality and musical sequencing. Participants of my study might use this intelligence to identify and appreciate all of the sounds emanating from the installation. Furthermore, Gardner posits the existence of bodily-kinaesthetic intelligence which involves a talent for the "control of bodily movement" and "the ability to use one's body to play a game" amongst other things (p.10). Participants in my study might exploit this intelligence in order to move through the mazes of the installation in such a way to better appreciate and understand it. In *Learning in the Museum* (1998), Hein explains how the Theory of Multiple Intelligences is well suited for engaging a multitude of visitors in a multiple of ways:

> For educational practice, this theory encourages expanding educational activities beyond traditional verbal material organized to appeal to logical-mathematical thinking. All human beings possess all of the intelligences although individuals may have preferences for particular ones. Therefore (…) museum staff should consider multiple ways to involve their audience by exploiting all the senses (activated for musical, spatial and bodily-kinesthetic intelligences). (p.165)

By identifying musical, spatial and bodily-kinaesthetic intelligences, Gardner provides an approach to learning which is well suited to appreciating and understanding installation art. The pathway for learning suggested by Gardner's theory are congruent with the objectives of my proposed study focussing on the role of the senses and on physical engagement as possible avenues of explorations for understanding and appreciating installation art.

Direct and Concrete Experience

Why are senses important to learning? We access and gain information about the world primarily through our senses. After more than a decade of research in museum settings, Falk and Dierking (2000) made the following declaration about learning: "Of course, central to all learning is our perceptual system; information must somehow be perceived – seen, heard, smelled, tasted, touched or in some way

sensed" (p. 17). Hooper-Grennhill, another researcher with extensive experience in museum education agrees:

> Today, one of the strongest claims made by museum educators is that of the value of learning through the senses. The use of the sense of touch, smell, hearing and taste have been added to sight as museum educators have developed powerful ways of teaching based on museum collections. Pathways to learning that include embodied approaches -- opportunities to handle artefacts, to act out ideas and to design and produce creative products as a response to museum collections -- are effective in engaging learners of all ages and abilities. (…) These ideas lie behind recent changes in display technologies. (Hooper-Greenhill, 2007a, p.374)

In *A Teacher's Guide to Multi-sensory Learning*, Baines (2008) explains that direct experience involves all the senses. Also, direct experience gives better results for understanding and remembering than teaching with abstract concepts. Baines (2008) and Taylor (2010) provide examples of sense-filled experiences that highlight the plus value of such experiences. Baines writes of learning about a hamburger by spending time in a cattle ranch, then cooking the meat and finally eating the burger. This direct experience gives better results for understanding and remembering a burger than information afforded by the abstract representation of a concept such as the golden arches of a hamburger restaurant to understand what a hamburger is. Taylor asks us to consider: "the totality of sensations that come from

a visit to a working nineteenth-century Michigan farm on a cold March morning"[…]" least we forget that humans experience the world about them using all fives senses" (p. 180). Also, because direct experience involves all the senses, it has more chances of reaching a larger number of students and, in this way, of reaching individual students' preferred styles of learning and knowing as posited by Gardner (Baines, 2008; Gardner, 1993, p. 73). Baines argues that using all of our senses helps the mind hold on to something tangible. Falk and Dierking agree. Their research shows that the majority of people access information, especially new information, in a concrete way and argue that this is also the case when learning occurs in a museum setting: "most visitors, whether adults or children, deal with exhibits on a concrete level, rather than on an abstract level" (1992, p.77).

The Experience of Hearing

Hearing has been found to be important to learning in several ways. For example, researchers have established that student success in reading and writing can be improved considerably using sound-based software such as a Dragon voice-to-text programs (Baines, 2008, p. 57). These work well especially for students with reading or learning difficulties (p. 57). Listening to music is known to have powerful effects on us via our sense of hearing: "indeed, because music involves several parts of the brain, including areas associated with language ability, emotion, and rhythm, it can have profound effects on our attitudes and learning" (p. 59). Some research has been conducted into the influence of hearing on learning in museum settings. Research in a natural history gallery at the Boston Museum of Science conducted by

Davidson, Heald and Hein (1999) shows that hearing is strongly linked to memory; participants retained much more information provided to them as audio data than they did from written information. During studies conducted at the Toledo Museum of Art, researchers found that participants discussed paintings with more emotion when they listened to music at the same time as they viewed the paintings (Dudley, 2010, p. 180). While visiting *Radio-Canada, A Story to Follow*, (Musée de la civilisation in Québec City, 2011) an exhibition marking the 75th anniversary of the French service provided by the Canadian public broadcaster, I too experienced the power that hearing can have on memory. *La sourie verte* [literally "The Green Mouse"] was a children's television program which starred a large green mouse. The show always started with the mouse singing: "Dix moutons, neuf moineaux, huit marmottes…" (ten lambs, nine sparrows, eight groundhogs) (author translation) and so on, naming animals and counting down from ten animals of all sorts to one green mouse. It had been perhaps 30 years since I had heard this song. Yet, I stood there, in the museum, in front of a televised rerun of the show, and sang the whole song verbatim! Many art museums, if not most, now put in practice the aural enhancement of learning; they provide guides or audio guides to accompany the visual experiences of visitors presenting verbal commentaries and musical landscapes. Using hearing for the purpose for learning has been researched for the benefits it provides students with reading difficulties. Music has been shown to have educative, behavioral and therapeutic benefits (Baines, 2008, p.61). The influence of hearing on memory has been demonstrated in research at museums of technology and civilization (Davidson, Heald and Hein, 1999). Yet little empirical

research has been done on the use of hearing for the appreciation of installation art in art museums or other art related settings.

The Experience of Touch

Museums used to be mostly places people visited to view collections of great monetary value, and often unique, delicate and fragile pieces, which were preserved at a safe distance behind glass. Now, some museums have handling collections as well as reproductions made specifically for touching. Sometimes, museums with a more educational vocation encourage touching as a way of learning. Touching is possibly one of the senses best acknowledged as having a positive effect on learning and appreciation in museum education.

> Although museums remain essentially visual modes of experience, many institutions have explored wider sensory approaches to their objects, of course. Education departments' use of handling collections has long demonstrated the value of physically interacting with 'real thing', as have more recent initiatives such as the Victoria and Albert Museum's *Touch Me Exhibition* (2005). Museums have also used touch in reminiscence (…) work. New, digital, touch technologies that permit the user to 'feel' a distant or fragile object are being explored too (…). All such projects acknowledge the value of sensory modalities beyond the visual alone, particularly that of Touch. (Dudley, 2010, p.11)

Many museums the world over have acknowledged the value of touch for learning about their collection. One way in which museums recognize the value of touch is by offering temporary or permanent exhibitions that include touch activities. Museums have long been concerned about offering exhibitions for the blind and partly blind visitors. Indications of these activities go back to the start of the twentieth century, and with more recent activities taking place in British national and provincial museums (Hooper-Greenhill, 1994, p. 247). The Louvre Museum in Paris has a permanent tactile gallery since 1995 with reproductions of some of its most popular sculptures. The Louvre has set up tactile exhibition tours around the world since 2006. Since 2001, *Art Beyond Sight* is a New York based international association of more than 250 museums that make collections available to guests with disabilities (Rambert, 2011, p.12). Research in the natural history gallery at the Boston Museum of Science conducted by Davidson, Heald and Hein (1999) showed that visitors responded with information they had obtained from touching activities related to the dioramas (p. 237). In recent empirical research about encouraging multi-sensory engagement by allowing visitors to handle objects in the permanent exhibition *African Worlds* at the Horniman Museum, South London, Golding demonstrated that touch was an important sense for acquiring knowledge, especially for autistic children (Golding 2010, p.238). During a visit to the exhibition *Maya: Secrets of their Ancient World* (the Canadian Museum of Civilization in Ottawa, July, 2012), I was delighted to find many reproductions of original Maya art objects. Large labels invited all to "Please Touch". Fellow visitors at the museum were visibly

elated and actively communicating with each other, mentioning how nice it was to finally touch instead of being told not to touch.

Touching is perhaps the sense best recognized for its potential contribution to learning and appreciation in a variety of museums. There is a long history of using handling collections and a growing practice of touching exhibitions using reproductions of key exhibits. There is a long and expanding history of exhibitions designed specifically for the blind and visually handicapped. Research in a variety of museums has demonstrated touch to be an important sense for the acquisition of knowledge. Yet there is little empirical research in art museums or art education settings related to touch and installation art. One exception is the research into the sense of touch in art education conducted by Springgay (2004), who proposes touch as a viable mode of inquiry for students creating and discussing art works (p.9).

The Experience of Smell and Taste

If vision best served objectivity because of the fact that sight can function from a greater distance, then smell can be understood to best serve memory because it is a sense based on proximity and, as such, the most subjective of all the senses (Duncum, 2012, p.184 and 186). Taste, on the other hand, is experienced in extreme proximity since the object of taste must enter the cavity of the mouth in order to be sensed by taste. Therefore, the sense of taste is also subjective and closely linked to memory. Important characteristics of smell and taste make these senses particularly relevant to teaching and learning. The first characteristic is that humans are

extremely receptive to smells and tastes even if these reactions are sometimes unconscious (Baines, 2008, p. 88). Secondly, smells and tastes stay in the brain much longer than any other sort of recollection (p.88). Finally smell and taste "have been shown to influence health, belief, behavior, attitude as well as productivity" (Baines, p. 88). In the context of museum research, participants in a study conducted at the Boston Museum of Science by Davidson, Heald and Hein (1999) referred to animal habitat smells "as new information they had learned from the exhibits" (p. 231). The Montreal Botanical Garden has a permanent smell gallery intended for the visually impaired. In this outdoor gallery, visitors are invited to smell plants and herbs that are hidden from view in aerated boxes. In later tactile encounters with the same plants and herbs, smells encountered previously can help with their identification. Although smell and taste are important vehicles for learning and appreciation "taste and smell are the senses least used for learning in the classroom" (Baines, p.88). This can probably be said about art classes as well.

Multi-sensory Learning Research and Practice

The review of literature about the senses and learning and the use of senses in art appreciation has thus been focused on the senses considered individually. This was done in order to focus on the particularities of each sense. However there are also research findings that support and validate the concurrent use of several senses in learning. Multi-sensory approaches to learning in education in general have been tried and tested with various populations. In the mid- 1920s, Samuel Orton

developed a multisensory approach for teaching spelling and writing that uses visual, auditory, and kinesthetic[5]-tactile activities simultaneously in order to enhance memory and learning. This approach is still in use today for overcoming dyslexia (Orton-Gillingham, 2000). For the teaching of music, the Suzuki method, introduced in the United States in 1964, has been using multisensory strategies for generations (Baines, 2008, p. 21). Recent research on reading in England suggests that multi-sensory activities are the best approaches for increasing student success (p. 23). Baines also notes that when learning involves all the senses, students feel more engaged and are more likely to be interested in and to succeed in their studies. In educational research, this is an important aspect of multi-sensory learning since interest has been shown to strongly correlate with successful learning (p. 15).

Museum related research show that museums can be suitable settings for learning using several of our senses. This is due in part to the fact that learning in the museum is object-based. In a brief history of the practice of learning and teaching with objects, Hooper-Greenhill (1994) describes how museum collections and object-based teaching have worked well together. She describes the ways in which people relate to objects as a manner of data collecting using senses. She also refers to Aquinas' declaration – dating as far back as the Middle Ages - that *sensibilia* or 'sense impressions' was considered a valid form of human cognition (p. 231). Hooper-Greenhill explains how, in the Renaissance, knowledge about a specific

[5] Kinesthetic is the american spelling of kinaesthetic. Kinaesthetic is the derivative of kineaesthesia defined by the Oxford English dictionary as " the awarenesss of the position and movement of the parts of the body by means of sensory organs (proprioceptors) in the muscles and joints" (Kinesthetic, 2004, p.782)

phenomenon was constructed using exhaustive references to all known writings on the subject; no distinctions were made among observed, written, fabled or even mythified events. In response to this confusion, seventeenth century philosophers and educationalists stressed direct observation as a means of eliminating knowledge that could not be verified through the examination of objects (Hooper-Greenhill, p. 231). This new process of knowledge creation was adopted by an education system which prioritized perceptions first, followed by memory, understanding and judgment (p. 231). Teaching with objects became central to nineteenth-century instruction and the rationale for doing so was nothing short of avant-garde "to develop all the child's faculties in the acquisition of knowledge" including the 'development of sense-perceptions' (p. 232).

Although there is a long history and practice of multi-sensory learning in many types of museums, there exists few examples of empirical research on the use of multiple senses for learning in the art museum and even less empirical studies on the appreciation of installation art in particular. One research project which has addressed learning in a museum setting using multiple senses is the aforementioned study by Davidson Heald and Hein (1999) in the natural history gallery at the Boston Museum of Science. George E. Hein was part of this research team and, in *Learning in the Museum* (1998), he recommends that museum personnel use multiple ways to engage their visitors by addressing all of the senses (Hein, 1998, p. 165). The study conducted by Davidson, Heald and Hein (1999) demonstrated that, through the addition of multi-sensory interactive modules, visitors actually

learned using several broader and more diverse sensory modalities including "reading, listening, smelling and touching" (Davidson et al., p .237). Also, although this research was originally intended for disabled people, the three researchers found that "multisensory learning opportunities not only provide a way to reach challenged audiences, but also provide an appropriate challenge for all visitors" (p.237). Furthermore, in the also aforementioned study conducted in the exhibition *African Worlds* (no date) at the Horniman Museum in South London, research findings demonstrated the value of multi-sensory engagements for better art appreciation, especially for autistic children (p.238).

Art educators Bolin and Blandy (2003) have considered the problem of the underuse of the senses (other than sight) for art appreciation from a philosophical point of view. Bolin and Blandy advocate for the inclusion of all the senses in order to expand the field of art education to include the theory and practice of material culture[6]. In *Beyond Visual Culture: Seven Statements of Support for Material Culture Studies in Art Education* (2003) they consider, as I have for my research, the multisensory nature of contemporary art and advocate, as I do, to include the other senses for its comprehension:

> The multi-sensory orientation of material culture studies is congruent with contemporary trends in arts and culture and will permit art educators to

[6] "Material culture is a term that is broad-based in its meaning and application, and describes all human-made and modified forms, objects, and expressions manifested in the past and in our contemporary world" (p. 249)

> facilitate the aesthetic imagination necessary to engage and to participate with contemporary arts and cultural experiences. (p. 255)

In the 2012 Spring issue of one of the respected research journal, *Studies in Art Education*, esteemed art education scholar, Paul Duncum, also advocates for the engagement of all the senses in art education: " While visual art appeals to the sense of sight, both recent art and popular visual culture appeal to the whole sensorium, the sum total of the ways we experience the world" (Duncum, 2012, p.182). More specifically, he argues, as I do, that "approaching art not as a primarily visual phenomenon but as a multisensory phenomenon, with the visual more or less regarded as engaged on a work-by-work basis, reinforces the efforts of art educators concerned with performance installations, women's, and indigenous art" (p.191).

By its very nature as multi-modal art, installation art clearly requires the engagement of several senses. Installation art also requires an important additional element for its experience and this is the active physical involvement of the visitor.

Physical Engagement and Learning

In my study, participants will actively engage in the physical exploration of the chosen work of installation art. In the case of installation art, because of its

immersive nature and the fact that visitors must be able to attend to all the different components that form the artwork, visitors must physically enter the space of the installation, and meander through its labyrinths, footpaths, passages, stairs and doorways**.** Installation art requires an active physical approach. This activity, which consists of physically exploring different components of the work of installation is similar to the activity of the eyes who survey a two dimensional work of art such as a painting. Just as the physical activities in a work of installation art, the eyes survey the painting in an effort to make an inventory of all its parts. An active physical approach to learning is an important part of the museum experience according to Falk and Dierking (1992). Museum visitors need to attend to several tasks involving physical engagement: the task of orientation within the museum, the choice of destinations and pathways within the museum as well as the choice of items to attend to in the exhibitions (Falk and Dierking, 1992, p.58). Hooper-Greenhill (2007b) also found learning in the museum environment conducive to active physical engagement: " Museum-based learning is physical, bodily engaged: movement is inevitable and the nature, pace and range of this bodily movement influences the style of learning" (2007b, p.4). I found comprehensive and relevant empirical research about learning and active physical participation in the context of museums studies in Hooper-Greenhills' research report in *Museums and Education; Purpose, pedagogy, performance* (2007b). The book is based on research that was planned under the tutelage of the Research Centre for Museums and Galleries (RCMG) in the Department of Museum Studies at the University of Leicester. The focus of this research was on school students in active learning conditions in several

museums and art galleries with collections that represented all disciplines (Hooper-Greenhill, 2007b, p. 8). The type of learning that emerged in these conditions entailed not only intellectual engagement but also involved body oriented and immersive learning (p. 10), the same kind of qualities required to experience a work of installation art. I agree with Hooper-Greenhill that the pedagogic style to adopt for this kind of experience is "participative", (…) "where [learners'] bodies are seen as potent resources for learning" (p.13). Furthermore, education scholars are persuaded that "settings which enable active physical engagement, where the tasks and activities are carefully selected, designed and paced to match the capacities and interests of the participants provide excellent, if not optimum, conditions for learning" (p. 171).

Because my research addresses the experiences of an adult population, it is also important to note that, even though physical immersion is the first way by which learning develops, learning by experiencing continues to be indispensable throughout our lives (p. 172). While there is a widely held belief that physical immersion is only suitable for young children, present-day learning theorists stress that this opinion is incorrect and that this way of learning is just as essential for people at any stage of life (p.172).

Arguing for the use of the body in learning and for the re-unification of mind and body in art education, education researcher Bresler (2004) and art educator London (2006) point to the invaluable role that the body has played in many early and

present-day cultures such as: the Celts, religions like Hinduism, Buddism, the poetry and dance schools of traditional Indian, Balinese, Thai, Korean, Chinese, Japanese, Philippine, Mixtec, and Zapotec cultures, and, finally, the traditional and totem pole and mask makers of the Tinglit and Inuit[7]. Other voices advocating for the inclusion of the body in art education can be found in the proponents of holistic education. At the core of holistic art education, as proposed by London, is the notion that human beings are constituted of three equal parts: the mind, the body and the soul (London, 2006, p. 8). By reintegrating the body into the equation, London argues that we attend to all parts of the human being**.** London challenges our educational system and the discipline of art education to "create a whole, coherent, graceful, elevated human by attending to the whole learner through the efforts of the whole teacher" (London, 2006, p. 14). Hubard agrees that the reunion of mind and body would have positive repercussions in art education: "If students are lucky enough to experience art through the different dimensions that together make them human, the works [of art] they see will enter their lives in more significant and memorable ways" (Hubard, 2007, p.51).

The Dimensions of Aesthetic Experience

Perhaps one of the most accepted definitions of the aesthetic experience is the one proposed by Csikszentmihalyi and Robinson (1990), which posits that aesthetic experience consists of four main dimensions: the perceptual, intellectual, emotional

[7] For a more exhaustive list see London, 2006. See also Howes, 1991.

and communicative dimensions. In proposing this definition, they were aiming for a definition of the ideal aesthetic encounter between a viewer and a work of art. To this end, for their study of exemplary aesthetic experiences, Csikszentmihalyi and Robinson selected participants who were all experienced museum personnel. In the Foreword to Csikszentmihalyi and Robinson's seminal *The Art of Seeing; An Interpreteation of the Aesthetic Encounter,* Waller further explains this choice:

> This investigation looks at the responses of skilled art perceivers. This may strike some as an elitist approach, far removed from the capabilities of the average museum-goer. But if the ability to derive pleasure from the contemplation of works of art is indeed an acquired skill, it only makes sense to study the practices of those who may be presumed to possess it. (Waller, 1990, p. xi).

In studying heightened, high quality responses to works of art, Csikszentmihalyi and Robinson addressed questions about art experiences which were "particularly significant" (p.190) and "particularly memorable" (p. 181). For my part, I am not interested in adult visitors' optimal responses. Therefore, I am not imposing similar standards on the quality of response of my study participants. Rather, I am interested in the experiences of both expert and non-expert viewers. This is why I define my use of the term *aesthetic experience* in this study as Lachapelle did in his (Lachapelle, 1994, pp.11-15): as an art appreciation or art understanding where most kinds of responses to a work of art are accepted, as long as my participants are

attending to the work of art. My research aims to further the understanding and the appreciation of installation art through the use of our senses and of our physical engagements. This is not only because installation art and many other types of art appeals to all the senses and demand active physical engagement on the part of the viewer. It is also because viewers experience works of art multi-sensorially and physically – whether they are aware of it or not. This is why my definition of the term aesthetic experience in this study also includes responses using all of the senses as well as all physical engagement with the work of art.

One of the possible outcomes of this research is to potentially identify other, so far, unacknowledged dimensions of the aesthetic experience such as the senses of smell, touch, hearing and taste and the physical engagement of the aesthetic experience. The concept of active physical participation during museum visits has been previously highlighted by Hooper-Greenhill as a pedagogical approach to adopt for teaching aesthetic appreciation in the museum environment (Hooper-Greenhill, 2007b, p.13). The idea of active participation is proposed by Lachapelle as an educational approach to public works of art to be found in outdoor settings (Lachapelle, 2010, p. 157). In his chapter in *Essays on Aesthetic Education for the 21st Century* (2010), Lachapelle presents as an example of participation-based art appreciation several educative activities scheduled as part of a symposium of contemporary art. The active participation of citizens of the small town of Amos during the two weeks of the 3rd Abitibi-Temiscamingue Symposium of Visual Art proved to be a successful educational approach to public works of art. In an

endeavour to incorporate art in the every day life of the town, organizers of the event used innovative ways to engage community members, "not only as spectators but as active participants" (Lachapelle, 2010, p.158). To this end, community member were solicited as participants in creative activities associated with the events such as the production of cardboard snow crystals which were deployed to help locate the various symposium sites (Lachapelle, 2010, p.158). In 2008, The National Gallery of Canada in Ottawa mounted the exhibition *Caught in the Act: The Viewer as Performer.* One of the concepts behind this exhibition was to present the Canadian artists interested in participatory art (Theberge, 2008, foreword, p.7). In their response, artists searched for ways to involve the visitors in novel and stimulating ways and to demonstrate that meaning is formed by the relationship between visitors and artists (foreword, p.7). The artworks presented included sculptures and installations which insistently announced that "the active exchange between viewer and object becomes as significant as the artwork itself" (foreword, p.7). Pierre Théberge, at the time Director of the National Gallery of Canada in Ottawa, proposes the active engagement of the visitors in interactive installations as a way to enhance the "appreciation of Canadian contemporary art" (foreword, p. 8).

So far, the literature has shown that multi-sensory and active physical approaches to art appreciation in museum education and in art education in general are becoming more and more common. To conclude this discussion of the literature, I will now turn to environmental aesthetics. The consideration of the immersion of the body in an environment and of the multi-sensory nature of that environment makes

environmental aesthetics a natural ally to art appreciation of installation art. Initially, environmental aesthetics concentrated on nature as an environment for aesthetics but now environmental aesthetics includes as part of its focus other kinds of environments shaped by humans, yet constructed of natural materials (Hick, 2012, p. 192). This is certainly the case of the installation work chosen for this study. Hick reminds us that one key difference between the appreciation of art and the appreciation of nature is that nature surrounds us: " In simply taking a walk through the woods, one not only *sees* the trees, the rocks and the dirt; on also *hears* the rustling of leaves and creaking of branches, one *feels* the humid air and the cool breeze, one *smells* the pine and the moss" (p. 191). It is this immersive aspect of the model of environmental aesthetics, which makes it so germane to the appreciation of installation art, and particularly to installation art located in nature. Once again, this is the case of the work of installation art chosen for my study. Also, because environmental aesthetics considers the dimensions of experience brought on by the inclusion of senses other than sight, it shares similarities and affinities with my concern for the appreciation of installation art.

> The fine arts have traditionally focused almost exclusively on sensations of sight and sound, but with the renewed interest in environmental (…) aesthetics, the 'lower' senses have come to take an important place. They help to orient us in our environments, to provide value and meaning to our experiences, to invoke memories and emotions and to allow for the free-play of the imagination. (p.200)

Finally, environmental aesthetics provides the kind of approach needed for the appreciation of outdoor installation art because it is an aesthetic of active physical engagement. “When you walk trough the woods, along a beach, or across a filed, you are an active participant, and not merely a passive observer” (p.191). The findings of environmental aesthetic research suggest that research is needed into the active physical engagement required by installation art. Yet, little empirical research into physical engagement in relation to art installation has been conducted so far and even less research has been conducted into the combined sensorial and physical engagement with installation art.

Summary

In this chapter, I established that my study operates within the paradigm of an active constructivist, experience-based model of knowledge, where knowledge is understood to be individually constructed through experience using multiple ways of knowing. The literature in education and museum education has shown that the prevailing understanding of learning has changed from a transmission model to a constructivist model of learning. This literature has also demonstrated that the idea of knowledge has been transformed from a concept of universal truth to the idea that knowledge is constructed by the individual and influenced by previous experience and knowledge, social and physical contexts and is dependent on perspective and on culture. Some answers to questions about the diminished

importance of the senses other than sight as ways of knowing were found examining the historical contexts for the association of sight and mind and the dissociation of mind and body. Current research into multi-sensory learning and active physical engagement has highlighted some of the contributions of the senses of smell, taste, touch and hearing and of the engagement of the physical body to learning. The lack of empirical research into multi-sensory and physical engagement as it applies to installation art was brought to the foreground. Possible new dimensions of aesthetic experience supplied by the multi-sensory and physical engagement with installation art were suggested. My goal is to update our understanding of the art appreciation process in order to make it congruent with the myriad of sensorial and physical ways by which we can experience installation art and to propose multi-sensory and active physical engagement as valid ways of knowing for aesthetic appreciation. In the next chapter, I present the methods by which I will proceed to achieve this goal.

CHAPTER 3 RESEARCH METHODS

Introduction

In this chapter, I will first discuss the research orientation of the study**.** I will then give an account of the five pilot projects that informed the final procedures for this research project. I will address the selection and recruitment of participants**.** I will then discuss the decision to record the activities using video. I will also address the use of semi-structured interviews for documenting participants' exploration of the installation. Finally, I will describe the three data gathering activities chosen for the fieldwork and address how the data generated by these activities was compiled, treated and analyzed.

Research Orientation

My research methodology is qualitative and empirical. Here I will define how my study exemplifies qualitative research and why it is to be considered empirical research. I will do so by first comparing the main difference of the qualitative research process to the quantitative research process as proposed by Hoonaard :

> In qualitative research, which generally follows an inductive approach, researchers usually start with the social world and then develop a theory that is consistent with what they see. In quantitative research, which

> generally follows a deductive approach, researchers tend to begin with a theory and then test that theory in the empirical world. (2012, p. 20)

The foundation of qualitative research is that the data informs the researcher's understanding thus allowing the researcher to answer questions and build theory. Unlike quantitative research, qualitative research does not attempt to validate an hypothesis, nor to test premises (Hays and Singh, 2012, Hoonaard, 2012, and Warren and Karner 2010). I have identified the following features that identify my study as qualitative and empirical: meaning is derived from the participants' experiences; the focal point of the research is participants' experiences; individuals and settings vary; logic proceeds from the particular to the general; observations are subjectively base; the research is contextual, field based, the methodology endeavors to render accurately the participants' point of view (Hoonaard, 2012; Warren and Karner 2010).

All my collection methods are descriptive: video (visual research), semi-structured (or in-depth) interviewing, and what I call "video elicitation", a method akin to photo elicitation. All these methods are described in more detail in this chapter. Another aspect of qualitative methodology that has been especially helpful in my research methodology is that the procedural design of the study is "emergent" (Hoonaard, p.21). This means that you can and should make adjustments to your procedures as required. I will discuss this in more detail in the chapter.

Methodological and Technical Preparations for the Study

Test I

After choosing the work of art *Pomme de parterre* as the focus of my dissertation research I decided to conduct a pilot project in the winter of 2007 since the start of the study at Reford Gardens was scheduled for the following summer. For this first pilot study, I needed to simulate the setting of *Pomme de parterre* as accurately as possible given that it was now winter and that Reford Gardnens were closed for the season. I selected a public garden space with outdoor sculptures, conveniently located in Montreal, where other people would also be walking around and perhaps interacting with those sculptures, in the same way that visitors to the Reford Gardenes in Métis, Québec might be visiting *Pomme de parterre.* The park chosen for this pilot study was in the neighborhood of Rosemont in Montreal where, in the context of a winter festival, the production of ice sculptures is a yearly tradition. Armed with only a video camera, my purpose for this pilot project was to simulate the conditions of the research site at the Reford Gardens so as to test the technical features of the camera and my skills for taking on the dual roles of videographer and researcher. A friend agreed to act as a test subject. Once at the park, my friend obligingly circulated among the ice sculptures. As I documented the test subject's activities, I found that the recordings I made with the camera looked decidedly jittery on the camera's LCD screen. When prompted, my subject interacted with the sculptures, touching their surfaces so that I could practice zooming in with the camera. As I videotaped, strangers sometimes accidentally appeared within the

framing of my video recording and, thus, proved to be a distraction that I had to learn to contend with. As I experimented with the camera, I came to understand that instead of using the zoom on the camera, it was preferable to stand close to the test subject in order to clearly see her behavior as well as the details of the sculptures. For this reason, for the actual research project at Reford Gardens, I decided to limit the use of zooming in the videotaped research data except for brief segments inside the installation's potato shed. There, the participants are confined in a very small area until they exit through one of the doors. In this situation, the videographer has no choice but to use the camera's zoom given the limited space inside the shed.

Returning now to the Rosemont pilot project, after just a few minutes at -20°C the lens and screen of the video camera stopped working: I realized that the camera was not designed to operate in such cold conditions. I wondered whether something similar might happen in the sweltering mid-summer weather during which the actual research project was to take place in the Reford Gardens. After just 20 minutes in the cold my right hand became numb. This made me realize just how much dexterity one needs to operate the camera.

Test II

The second pilot project took place a few weeks later in the same winter. Again, I went to an outdoor sculpture park, the Beaver Lake area in Mont Royal Park in Montreal. This time, however, the weather was milder. The objective of this second pilot study was to simulate various technical conditions that I would likely

encounter in an open outdoor setting with participants freely moving about. This time, I used a tripod which solved the jitteriness of the video recordings and the fatigue I had experienced in the first pilot project. This time, I learned how to do smooth pans, and slow zooms. I learned how much time these filmmaking techniques required and what effects they produced. Also, concerns related to sunlight, backlighting, ambient sound, the use of microphones and the weight of equipment were addressed. I realized that the tripod was now a much needed addition to the technical needs of the research project and that I would definitely need a small suitcase on wheels to transport all this equipment. This is, in fact, what I ended up doing during the actual fieldwork at Reford Gardens.

Test III

Although useful for many reasons, the first two pilot projects were not adequate approximations of the actual conditions to be encountered at Reford Gardens because of significant weather and terrain differences. Therefore, a third pilot project was undertaken on the site of the art installation *Pomme de parterre,* in Reford Gardens, in August 2007, one year before the actual research project was scheduled to start. For this pilot study, I recruited volunteers so that I could verify how they would circulate within the installation and react with the designated work of art after receiving the researcher's instructions based on a draft research protocol. From amongst my English-speaking friends, I recruited one expert female and one non-expert male to play the role of future research participants. One goal of this particular pilot project was to determine if it was better to follow participants

with the video camera as they moved within the installation during the first activity. Or, instead, would cameras in fixed positions provide better documentation of the participants' interactions with the work of art? Other goals of this third pilot were to determine how to record the interview with the participants during Activity #2. Would an audio recording or a video camera provide the best documentation of the interview? For Activity 3, it was necessary to determine how best to produce a permanent record of the participants as he or she reviewed and commented upon their initial exploration of the installation in Activity 1. As a result of initial tests on the site of the work of art *Pomme de parterre*, it was decided that an assistant would be required in order to produce the videotaped recordings, so the researcher could carry on with other tasks such as presenting and explaining the research instructions to the participants and setting up the material for the various research activities.

After following the female expert and the male non-expert participants around the site of the installation, I asked them for feedback about the research procedures, their comfort levels, and the quality of their experience as study participants. I also asked them about the clarity of the research instructions.

I viewed the ensuing video recordings and then came to the following conclusions regarding the videographer's role, the minimum distance required between the videographer and the participant and the point of view provided by the video recording. Having a videographer other than myself follow the participants in order to record their activity worked very well. Pilot participants reported no ill effects

from being followed by the videographer. They confirmed that they did not unduly get the impression that they were being followed as they explored the installation. As a result of this third pilot study, I was able to determine that the ideal distance between the participants and the videographer should be around twelve feet. This is far enough away to allow the videographer to follow the participants without "crowding" or intimidating them. Both pilot participants told me that they forgot about the videographer after a few minutes. This distance also proved to be close enough to capture details of the activity such as a participant touching a flower. Also, as a result of this pilot project, it was decided that the videographer should keep the participants inside the frame of the video image as much as possible. In this manner, the video recording would show the participant looking at, interacting with and moving within the work of art. On the same note, although this does not exactly replicate the participant's experience, it was decided to use the camera's night vision function inside of the installation's shed because, without it, it would have been simply too dark to capture anything at all. Use of the camera's night vision capabilities also meant that the videographer would capture an important potential source of data: the participants' kinetic and sensory responses as they continued to interact with the work of art while in the darkness of the shed, a major component of the installation.

In this pilot study, during Activity 2, the interview, I started by interviewing the expert and then the non-expert participant with the video camera pointed at the artwork and away from the participant. I thought I would rely on the video camera's

sound recording only so as to not intimidate the participants by pointing the video camera at them. After reviewing the resulting video recordings containing the sound track of the interview and a static view of the artwork, I took the following decisions to improve the procedures. To enrich the interview data and to visually support the resulting transcripts, I decided to record the participant's image as well as his or her comments. So as to not intimidate the participant, I decided that the video camera would be set at a distance while using an extension cord for the microphone. As part of the changes, the videographer would be required to zoom in on the participant in order to capture a close-up image of his or her face and body that would also document the participant's non-verbal communication. This solution was deemed the best solution for providing discretion along with a reliable combined audio and video image recording.

After interviewing the pilot participants and asking them about the clarity of the interview questions I discovered that the participants thought the questions were too long. During the presentation of research instructions, they often asked: "What was the question again?" Because the questions were too long, the participants needed more time to process them. Also, they sometimes needed an example to get them going. Therefore, the original set of questions for the interview was modified in three ways. First, the longer questions were broken down into several simpler ones that each focused on one major element. For example, the question: "What did you touch, smell, taste, and hear?" became the following questions: "What did you touch?"; "What did you smell?"; "What did you taste?"; "What did you hear?".

Second, sub-questions were added to the main questions. For example a sub-question added to the previous set of questions became: “Was any sense more solicited than another?” And third, more time was given to answer the questions. Furthermore, more time was provided before reading out the sub-questions. As a result, during the actual research interviews, participants provided answers that were more in depth and less clichéd. Finally, an additional sub-question was added to help participants focus on the potential usefulness of some of their sensory experiences. This addition was: “Did any of these sensations make you appreciate or understand the work of art?”

The pilot for Activity 3 -- the review of videotaped Activity 1-- took place at a rented cottage located within a ten minutes drive from the research site. The technology I used to review the videotape was a mini-DV player with a small screen measuring six inches diagonally. Here again, I thought that participants would be intimidated by the video camera, so I resolved to record only their verbal response to the video playback of Activity 1 by pointing the camera away from them, towards a side wall instead. Even if I had wanted to videotape, in the same frame, the face of the participant and the screen he or she was looking at, I would have failed with the technology I was using at the time. The screen was too small and the sound from the mini-DV player not very clear. After reviewing the videotape recording of Activity 3 which included a static visual of a side wall and a decontextualized voice narrating an unrecognizable event, I decided, as I had with Activity 2, to enrich the audio

recording with a corresponding visual of the participant viewing and responding to the videotape of Activity 1. The result would be a more complete data set. Further problems related to Activity 3 would finally be resolved in the very last pilot project.

Test IV

Although I had solved many problems, I still wondered about how to film my participants in the most advantageous ways in Activity 1 using views that would capture the most information possible about their experience. At this point, I still wasn't convinced that the videographer should follow the participants around the work of art. I wondered about the possibility of filming from fixed locations situated higher up. I also wondered about having views from various fixed positions around the site of the work of art. There was no doubt that these experimentations had to be done on the site itself. So, in November 2007, I went back to the site with a list of different shots to try out for consideration as different points of view from which to document the participants' interaction with the work of art. During this fourth pilot project my research assistant and I tested all the possible ways in which to record the movements of the future participants as they moved around the site of the installation. In all, seven different fixed camera positions were explored including some high-wind, sleet-soaked trials from the top of a twelve-foot ladder. I concluded that these possibilities were simply too dangerous for the videographer. This was in addition to the fact that the videographer lost sight of the participants at several points during their walkabout even when filmed from these vantage points. Fixed camera positions on the ground were also dismissed as the pilot project revealed

that there would be too little time for the videographer to move the camera and the tripod to the next fixed position in order to set up the camera to keep up with the participants. This was also too was dangerous for the videographer as he would have to run around from one fixed location to another with the legs of the tripod posing a tripping hazard. It was decided that the findings of fourth pilot study were conclusive. I resolved to use a videographer who would follow and videotape the participants from a respectable distance, so as to not intimidate the participants.

Test V

The purpose of this final pilot project was to find out if different technologies and different arrangements would better suit the need for documenting Activity 3. Once again, Activity 3 involves videotaping the participants as they review and comment on the video recording of their exploration of the installation in Activity 1. It turned out that a twenty-inch screen from the Mac computer was large enough and clear enough to playback the video recordings from Activity 1, while also freeing up the use of the video camera for recording Activity 3. By opening up the angle between the viewer-participants and the computer monitor, I was able to videotape both the viewer-participant and the computer screen that he or she was looking at. The high definition (HD) progressive scan of the video camera I was using was not only compatible with the progressive scan display of the computer monitor, but the quality of the resulting image in the video record of Activity 3 exceeded my

expectations by far. The quality of the sound on the video playback using the computer's speakers was also excellent.

The methodological and technical tests proved invaluable in shaping the research protocol and the technical procedures for the actual research study. Pilot projects determined how to best use the technologies and instruments to maximize the quality of the visual and audio data collected from the participants while, nonetheless, insuring their comfort levels. The pilot projects resulted in new procedures that also ensured the safety of the videographer and the participants, as well as the quality of the participants' experiences and responses.

Participants

Experts and Non-experts

In determining the type and mix of participants for this study, I was inspired by the research of Csikszentimihaly and Robinson (1990) who examine experts' approaches to understanding works of art in his study and related publication "The Art of Seeing; An Interpretation of the Aesthetic Encounter":

> …this investigation looks at the responses of skilled art perceivers. This may strike some as an elitist approach, far removed from the capabilities of the average museum-goer. But if the ability to derive pleasure from the contemplation of works of art is indeed an acquired skill, it only makes sense to study the practices of those who may be presumed to possess it. (p xi)

Csikszentimihaly and Robinson studied the art appreciation skills of the expert art viewers because, as Csikszentimihaly and Robinson posit, these are skills experts have developed. Csikszentimihaly and Robinson describe their expert participants in terms of the skills required for positive and significant encounters with works of art. In their responses to works of art, the "skilled art perceivers" were capable of:

> a perceptual response, which concentrated on elements such as balance, form, and harmony; an emotional response, which emphasized reactions to the emotional content of the work and personal associations; an intellectual response, which focused on the theoretical and art historical questions; and finally, what we characterized as the communicative response, wherein there was a desire to relate to the artist, or to his or her time, or to his or her culture, through the mediation of the work of art. (p. 28)

In determining the type and mix of participants for this study, I was also inspired by the work of Lachapelle (2007) who examines non-experts' approaches to understanding works of art in the publication "From Periphery to Centre; Art Museum Education in the 21st Century". Lachapelle posits that non-experts are similar to experts in certain aspects, for example, when using emotional and cognitive responses to works of art. Yet they are dissimilar in other ways. For example, non-experts rely more on their "everyday, experience-based knowledge"

(Lachapelle, 2007, p.124), and on tacit knowledge[8] criteria for evaluating works of art, whereas experts rely more on discipline-based knowledge.

In my own study, I examined the process of both expert and non-experts in order to learn from and compare the two groups. In all, ten (10) participants; five (5) experts and five (5) non-experts, 18 years or older, were asked to explore the chosen installation presented at Reford Gardens in Grand-Métis, Québec, Canada.

Definition of Expert Viewers

For the purposes of my study, I have adopted the definitions of expert and non-expert viewers proposed for other studies. Here, experts are described as: "informants who had professional university training in the visual arts and/or were involved in careers where such training was an entry level requirement"(Lachapelle, 1999, p. 62). I also considered participants who had a B.A. in related fields such as: art history, architecture, design, or art education.

Definition of Non-expert Viewers

I have also adopted a definition of non-experts from the same source. Non-expert participants are:

[8] Tacit is defined as: "understood or implied without being stated" (Soanes and Stevenson, 2004, p.1464).

> persons who have no university-level professional training in the fine arts. This definition does not exclude the possibility that some participants may have visited museums before or enrolled in introductory-level studio or art history courses (in school or elsewhere). (Lachapelle, Douesnard, Keenlyside, 2009, p. 248)

Selection of Participants

The recruitment of non-expert volunteer study participants was conducted by contacting friends and acquaintances. Expert volunteer study participants were recruited within the community of graduate students and instructors in a Faculty of Fine Arts at a Canadian University. I also recruited participants from within the community of researchers in the field of art education at a colloquium in Montreal in 2008 (Douesnard, 2010). Participants were contacted either in person, by phone, or email. All prospective participants received information about the purpose and duration of the study, the location of the research site, along with contact information. Within the group of prospective participants, some had already heard of the Reford Gardens and were planning to travel there or stop–over at Reford Gardens on their way to another destination. Participation in this research project proved to be the added motivation for three participants to make the trip to Reford Gardens. Six participants came directly to the gardens from Montreal. Three participants were residing within the vicinity of the gardens (Trois Pistole, Rimouski, Métis) and came to the research site for the day.

A total of ten participants were required for this study. However, in total, twelve participants were actually recruited and interviewed as a form of insurance in case some of the participants were unable to complete all activities. In the end, of the twelve participants that completed the study, ten were selected and retained for the purposes of the data analysis. One participant, participant # 8, was not retained for the data analysis as her testimonial was found to be very similar to that of other participants and, therefore, her participation was deemed redundant. A second participant, participant #10, was eliminated because I noticed, after the fact, that she did not qualify as a true non-expert because of her educational background: a Bachelor of Education in Drama. However, according to our definitions, this background also proved insufficient to consider her as an expert in visual art. Of the ten final participants, five were experts and five non-experts; seven were female and three were male.

Although my mother tongue is French, and this research was conducted in a predominantly francophone region of Quebec, I chose to conduct this study in English for the following reasons. The sources of the literature in museum education research are mainly English. The bulk of the recruitment of participants was conducted at a university where the language of instruction is English. Although five research participants' mother tongue was French, they were all bilingual. This decision was made also to eliminate the need for translation of research documents and protocols and to ensure the reliability of transcripts and subsequent analyses.

The Participants' Backgrounds

The data collection for this study took place during the summer of 2008. The participants came to Reford Gardens between mid-July and late August: this was the time of year when most people visit Reford Gardens since they are on holidays and, therefore, free from professional and other responsibilities. For the presentation of participants starting in the next paragraph, pseudonyms were assigned to each participant and their file numbers correspond to the order in which they took part in the study.

Lyne, expert, participant #1

At the time of the study Lyne was 57 years old. She holds several post-secondary degrees including a B.F.A, an M.A., and a Ph.D. She is presently a full-time faculty member in a Canadian university. Her favourite recreational activity is gardening. As a result, she has previously visited the *Floralies*, an urban outdoor art festival where natural materials such as flowers and shrubs are used to produce elaborate topiaries. This event took place in the old port of Montreal during the summers.

Juliette, expert, participant #2

At the time of the study, Juliette was 55 and employed as an art instructor in a Canadian university as well as an urban community centre. She is also a practicing artist in ceramics and mixed media. After graduating from college with a degree in

ceramics, she earned a B.F.A, and a M.A. degree. For the most part, her previous experience with contemporary outdoor works of art took place at an art centre in New York State.

Nathalie, expert, participant #3

In the summer of 2008, Nathalie was 28. At the time of the study her employment profile consisted of several simultaneous assignments: assistant at a gallery, editorial assistant for a publication, and work as part time instructor. In secondary school, she studied visual arts and sciences. Her undergraduate university training was in art history and German language studies. She has also an M.A. degree and, at the time of the study was a doctoral student at a Canadian university. Her experience with outdoor contemporary works of art included the collection of sculptures garden at Rene Levesque Park on the island of Montreal and the installations at the Louvre's Jardin des Tuilleries in Paris, France.

Joe, non-expert, participant #4

Joe was 33 when he participated in the study. He worked as an administrative assistant for a Canadian governmental agency doing accounting and administration. His education background includes CEGEP-level humanities, maths and administration. He also completed university courses in Forest Engineering . He had no educational or recreational background in the fine arts. As an outdoors enthusiast, he enjoys trekking, camping, skiing and biking. His indoor activities include playing the guitar, reading and computer games. His experience with

outdoor contemporary art consists of the installations and sculpture garden at the Rene Levesque Park and the Louvre's Jardin des Tuilleries in Paris.

Samuelle, non-expert, participant #5

At age 20, Samuelle's visit to the Reford Gardens was her first experience with outdoor contemporary installation art. At the time, she was a full-time undergraduate sociology major at a Canadian university and a part-time collection agency employee. She completed an introductory-level studio art class as an elective in university. She enjoys outdoor activities like skiing and snowboarding.

Cathy, non-expert, participant #6

Cathy was 18 and a full-time social science student at a college in Montreal at the time of her participation in this study. She also worked part time at a coffee shop. She has no previous recreational or educational art classes or activities, but reported that she enjoyed looking at public art located in outdoor settings.

Robin, expert, participant # 7

Robin, at the time age 33, was a secondary school art teacher and was in her first year an M.A. program at a Canadian university. Her undergraduate training consisted of a Bachelor of Arts Degree in Fine Art. She is also a practicing visual artist working in painting. She reported that she had visited the permanent exhibition of outdoor sculptures at the Montreal Museum of Contemporary Art (MACDM).

Participant #8: This participant was not retained for the data analysis (see p. 17).

Al, non-expert, participant #9

Al was aged 26 at the time of his participation in the study. He was currently employed as a security guard at an architecture museum in Canada. After completing his secondary schooling in Montreal, he started a CEGEP program of study with a specialization in delinquency intervention. He had not taken part in any previous recreational or educational art classes or activities and had no previous experience with contemporary outdoor works of art.

*Participant #10***:** This participant was not retained for the data analysis (see p. 17).

Mona, non-expert, participant# 11.

Mona holds a Doctorate in Theology and is a retired university professor. Although retired, she maintains an active academic life by publishing and presenting papers at numerous conferences. She was 69 at the time of the study. She was on the board of administration of a regional museum in the province of Quebec. She enthusiastically pursues creative activities such as music, dancing, cinema and museum attendance. She has visited many contemporary outdoor exhibition events such as the international exhibition at l'Ile Saint-Barnabe in Rimouski, Quebec. She had visited the International Festival of Contemporary Art at the Reford Gardens

many times[9] and also attended many concerts at Métis and Bic Park in the Gaspésie region of Quebec.

Yvon, expert, participant# 12

At the time of his participation, Yvon was 45. His college background was in leisure studies. He had a Bachelor's degree in art history and art education, a Masters' degree in education and was completing a Doctoral degree in communications. His artistic and recreational interests include video and cinema. He was also the director of a pedagogical resource center. He had visited a number of exhibitions of contemporary public works of art including the ones at the Reford Gardens Festival in previous years[10], Renée Levesque Park in Montreal, and installations in the town of in Riviere-du–Loup, Quebec.

Video Documentation of the Research Activities

Videotape recordings were used to document all of the research activities. During the first activity, each participant explored the site of the installation *Pomme de parterre*. This exploration was videotaped from a distance of about twelve feet by my research assistant who assumed the role of videographer for the duration of the data collection.

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[9] This participant had seen *Pomme de parterre* prior to her participation in the study. This situation will be discussed in the results

[10] This participant had seen *Pomme de parterre* previously. This will be discussed again in the Results chapters.

Video recordings were also used to document the two interviews that, in addition to the first activity, were conducted with each participant. In activity 2, my research assistant videotaped participants' on-site interviews. In activity 3, my research assistant videotaped participants' reactions as they viewed the videotape of their exploration of the art installation in Activity 1. There are many reasons for using video to produce a record of all three research activities. First, by using video, I was able to capture the facial expressions, the interactions with the artwork, the movements and trajectories, the non-verbal language and speech of the participants as well as any ambient sounds. Another advantages of using video to record research activities is that audio-visual recordings:

> allow researchers to review events as often as is necessary to fully understand them. The audio-visual documentation of language-related behaviours [...] permits an in-depth analysis of the relationship between the verbal and non-verbal components of the events [....] Film or video is particularly well suited to the study of proxemics (personal and cultural use of space). (Lachapelle 1994, p. 22)

Another reason for using video is that it is well suited for capturing research activities based on interactions between researcher and participant. After exploring the work of art on site in Activity 1, participants completed Activity 2, consisting of a semi-structured interview taking place just outside of the area of the installation

Pomme de parterre. Participants sat on a bench, while facing the researcher. This interview was videotaped by my research assistant from a distance using the zoom of the lens to hone in on the participant.

> Face to face social interaction...is the most immediate and the most frequently experienced social reality (...) Even though ethnographic observation of face-to face social interaction has been done successfully by sociologists and social psychologists, video and audio recordings are what provide the richest possible data for the study of talk and interaction today. (Denzin, 2000, p. 875)

The use of video presented some minor disadvantages for two participants. While reviewing the video of Activity 1 during the video elicitation in Activity 3, Yvon, expert #12, said that the research assistant was sometimes standing closer than the 12 feet specified in the procedures. He, however, did not express any further opinion about being filmed. While reviewing her video in Activity 3, Robin, expert #7, became aware that being filmed, at the very beginning of her exploration of the art work, made her refrain from grabbing at a tree branch. She, however, did not discuss any further inconvenience at being filmed. The rest of the participants (8 out of 10) participants did not mention any problem about being videotaped from a distance[11].

[11] Expert #7, Robin, described her desire to use a "stream of consciousness" approach (i.e. to talk out loud about the work as you are discovering it for the first time) for explaining the work of art. This of course would have necessitated for…

Semi-structured Interviews

The choice of semi-structured interviews for Activities 2 and 3 was an important research decision that requires further discussion. The semi-structured interview is a polyvalent tool. Although the researcher relies on previously prepared questions to guide the interview, he or she may also choose to pursue any unforeseen developments that might arise during the interviews. This flexibility allows the researcher to delve deeper into the participant's point of view. Also, the interviewer can adjust and explain his or her questions as the interview unfolds. The breath and depth of data produced by a semi-structured interviews can then be analysed in a variety of ways using any systematic method of analysis.

As a graduate student, I worked as a research assistant for four years in the context of a large study using semi-structured interviewing[12]. I had very positive experiences using the semi-structured approach to interview participants. I found that I was able to put participants at ease and they, in turn, provided very pertinent information. This is another reason why I chose to rely on semi-structured interviews as a research method for Activities 2 and 3. "With a skilful interviewer,

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…her to manipulate some type of recording device, which would have distracted her from the other chores she had to perform, such as entering and exciting the potato shed. This is why a post-visit interview was chosen over a stream of consciousness approach.

[12] Lachapelle, R., Douesnard, M., Keenlyside, E. (2009) The Impact of Prolonged Viewing on Aesthetic Dispositions and Interpretations. *Studies in Art Education.* Reston: NAEA. 50(3), 245-256.

the interview is often superior to other data-gathering devices. One reason is that people are usually more willing to talk than to write. After the interviewer gains rapport or establishes a friendly, secure relationship with the subject, certain types of confidential information may be obtained that an individual might be reluctant to put in writing" (Best, 1993, p.251).

Also, a semi-structured interview is an appropriate tool to use when one needs to rely on the testimony of participants, since it is easier to report on one's own subjective experience using talk. In a semi-structured interview the "objective is to bring the respondent to consider an issued in his own words, leading the interviewer towards the areas of greatest import for the respondent" (Dick, 2006, p.93). This type of interview makes for keener insights from the participants.

There are, or course, limitations to an interview. As an interviewer one must always be aware that it is possible to lead the participants in a certain direction. One must be aware not to overreact to particular answers because this might indicate a preference for certain types of answers. It is also important for the interviewer, to give sufficient reflection time to a participant. Impatience on the part of the interviewer might result in ill-conceived or even clichéd answers. In specific sections presented later in this chapter, I present the questions used for the semi-structured interviews conducted during Activity 2 and 3.

Activity 1: Participants' Exploration of *Pomme de parterre*

General protocol

Before commencing the research activities, participants were asked to complete a biographic form and to read and sign a consent form. Participants were then informed of the general proceedings for their participation in the study. Each participant was told that he or she would:

1) Explore the work of art *Pomme de Parterre* (Activity 1).
2) Participate in an interview about their experience in the first activity (Activity 2).
3) Review the video tape of the first activity to clarify their experience during the first activity and express their reactions, if any, upon seeing this video recording (Activity 3).

It was expected that many participants would decide to take part in the study by visiting the Reford Gardens accompanied by a friend who would also volunteer to participate in the study. Not only did this provide companionship for my participants, but it was also proved to be a good strategy for encouraging participants to come to the Reford Gardens. Since I could only work with one person at a time, I needed to make sure that, upon arrival to the research site, the second participant (i.e. the companion) would not observe the first participant's research activities. The solution to this problem was to ask the companion to spend

an hour visiting the historical gardens elsewhere on the Reford Garden site. This meant that, while one participant completed the research activities, the second participant (the companion) did not wait idly, but benefited instead from a stroll through the historical gardens, which were located well away from the Festival Gardens where the installation for this study was located.

At this point, readers of this dissertation might wish to view the map of the Gardens including the original traditional gardens and the site of the International Garden Festival presented in appendix B in order to become familiar again with the location of the installation. Figure 1 and 3 give a good idea of the various ways in which the participants were able to actively explore the installation[13]. Please note that the video camera's "night vision" feature was activated when entering the shed in the centre of the installation. I elected to use this technical feature of the video camera in order to capture a more accurate record of the participants' behaviour while inside the unlit structure.

Procedures specific to Activity 1

A list of instructions was prepared in advance so that participants could be briefed on exactly what they were supposed to do during the first activity. This information was read aloud to the participants, once on site, just before they began to explore the installation. They were asked to follow these guidelines:

[13]There is also a video portrait of the art work *Pomme de parterre* available at: http://www.refordgardens.com/english/festival/garden-1-pomme-de-parterre.php

1) You will be exploring a work of art.
2) You may explore as much of the area within or around the artwork as you like. You may move through the artwork any way you want. You may run, walk, lie down, stand still or sit.
3) Use any or all of your senses. You are free to explore any part of the artwork and to do what you want. [At this point, using a map, the researcher defined the exact area within which the installation was located (please refer to Figure 3 in chapter 1)
4) There is a notebook and pen on the bench at the entrance of the artwork if you wish to take notes.
5) There is written information about the work of art located on a pedestal. You are free to read this information but only at the very end of your experience. (Please refer to section 1.7 for the information provided on the pedestal about the work of art).
6) You should use a minimum of 5 minutes and a maximum of 20 to explore the work of art. (This instruction was intended to encourage the participant to take enough time to fully explore the installation).
7) Your exploration of the artwork will be followed by an interview consisting of general questions about your experience. You may contribute ideas not specifically mentioned in the questions, if these ideas arise when you respond.
8) We are going to record your art viewing experience using a video camera. The recording of the experience will make the analysis easier and more

reliable. My research assistant will be following you from a distance of 12 feet. Even though he is very discrete, please try to ignore him. Imagine you are on your own experiencing the artwork.

Additional Information

Given that some of the non-expert participants had little or no experience with art, I thought that additional information about art terminology might be requested by participants. As part of the instructional phase, I was ready to answer their questions concerning the terminology used in the instructions provided to the participants.

For example, I thought participants might ask that I explain what an "installation" was. In anticipation of this question, I prepared the following answer:

> …installation is a site-specific artwork. In this sense, the installation is created especially for a particular gallery or outdoor site, and it comprises not just a group of discrete art objects to be viewed as individual works but an entire ensemble or environment. Installations provide viewers with the experience of being surrounded by art […]. Installations generally are exhibited for a relatively brief period and dismantled, leaving only documentation. (Atkins, 1990, p.90)

Surprisingly, I did not have to resort to using this definition as all my participants, experts and non-experts, were familiar with this terminology.

Treatment of Data, Activitiy 1, Event Mapping

Event Mapping of Participants' Behaviours: Use of Senses, Kinetic Activities, and Non-verbal Behaviours

By reviewing and carefully observing each of the videotapes recorded during Activity 1, I was able to produce maps of each participant's trajectories and behaviors as they explored the installation in Activity 1. Readers will recall that the videotapes were made by following the participants while they walked about the area of the installation. On the maps, I traced participants' trajectories and inserted notations where kinetic, sensory and other related events occurred. An example of a map is presented here in Figure 7. The general layout of the maps is based on the original layout of the architectural plans for the construction of the installation *Pomme de parterre* . For the sake of clarity, all details were deleted from the architectural plans except for the outlines of the shed, the outlines of the paths, and the delineation of the site of the artwork. First, I recorded participants' trajectories using colored pencils onto a copy of this template of the layout of the installation. Specific colors are not significant in and of themselves; what is important is that the differences in the use of colors allow us to clearly follow the path of the participant when, for example, he or she retraces his or her steps or goes over the same section twice. Second, while tracing the movements of each individual participant onto the template, I've also indicated, using numbers and symbols, each observable

behaviour according to pre-determined coding categories that describe specific instances of sensory, kinetic and other behaviours, which I refer to as "events". The legend describing the meaning of the event symbols appears at the bottom of each map coding categories. On the maps, each participant's behaviors events are numbered sequentially in the same order as they occurred when the participant was exploring the installation. The categories of events are as follows: use of senses; kinetic occurrences; interactions with other visitors; proximate viewing (when a participant got very close to a piece of the artwork without actually touching it); non-verbal behaviors and affective reactions. Symbols representing these categories appear on the maps as: St for Sense of touch, Ss for Sense of smell, Se for Sense of taste; K for kinetic activities or B for backtracking; I for interactions with other visitors; P for proximate viewing. The following symbols are also used:

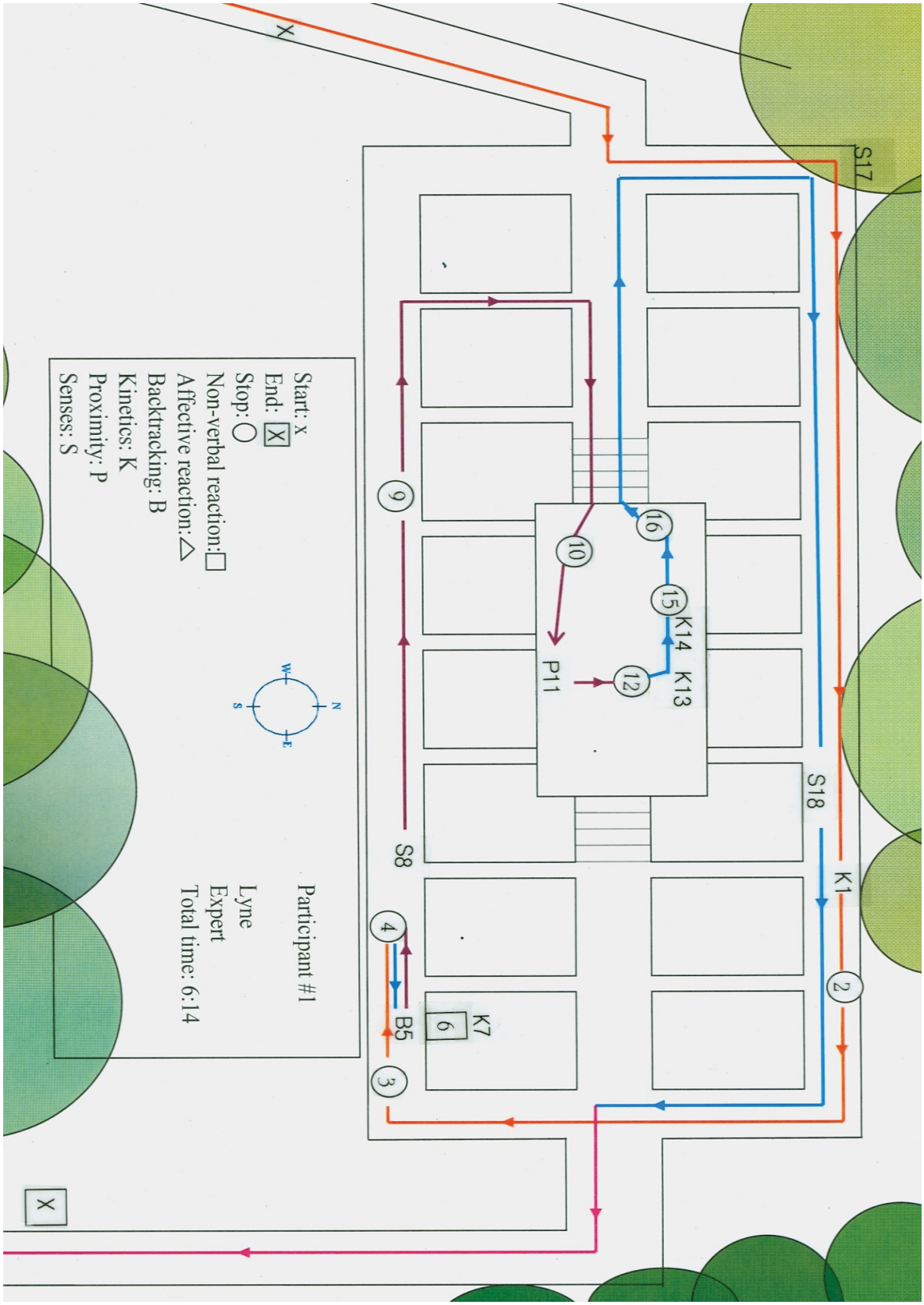

Figure 7 : Map of Lyne, Expert #1, Trajectories and Behaviors.

squares for non-verbal behaviors such as particular gestures that indicate the suppression of the urge to touch and triangles for affective reactions. In all there are 13 maps, one map for seven participants and two maps for three participants. The later three maps had to be laid out on two different pages because there was too much information to squeeze onto a single map. While drawing the paths for participants #5, #7 and #11, I was particularly pressed for space, as these participants engaged in a lot of movements and activities even while in the small, enclosed interior space of the potato shed. These participants' movements are therefore represented on two consecutive maps. On all the 13 maps an X indicates the start of the walk and a square with an X inside of it indicates the exit the participants took. The cardinal points are indicated by the abbreviations for North and South, East, West, just below the plan of the shed.

Treatment of Data, Activity 1: Descriptive Text Records

A descriptive text record of events and behaviors was written to verbally describe each participant's experience during Activity 1. The descriptive record includes detailed information for each occurrence of a sensory, kinetic, non-verbal or related behavior. The records are created by minutely examining the video footage of each participant's exploration of *Pomme de parterre*. In the resulting records, the events are numbered in the same sequence as they occurred and, therefore, correspond to the same events as they appear on the maps. The major difference between the maps and the descriptive records is that the maps present an overview of all the events taking place on the installation site whereas the descriptive records provide

a detailed account of each event according to the time line in which they occurred. Descriptive records of behaviors for each participant vary between three and seven pages; in all there are 47 double spaced pages. An example for the descriptive record of events is provided here in Table 1. This descriptive record belongs to Lyne (expert #1), the same participant for which the map of events and behaviors is shown in Figure 7. I made this choice as to facilitate the reader's comparison of map of events and behavior to the descriptive text record example.

Activity 2: Participants' On-site Interviews

Introduction

The use of senses and kinetics are the core interests of this research and they were, therefore, the starting point for determining the content of the questionnaire. I was also inspired to create questions by the research findings from other studies. For example, Project Zero's *ArtWorks for Schools Project* posits that high-level thinking dispositions are central for both responding to and making art. According to Project Zero, some of these dispositions are : "to explore diverse perspectives; to find, pose, and explore problems; to reason and evaluate"(Harvard, 2007). I was inspired by the idea of dispositions to formulate questions in order to investigate some of these categories: attitudes, emotions, sensitivities, as well as cognitive skills (Harvard, 2007).

This excerpt begins at 1 minute into the participant's activity. Lyne has undertaken a tour of the site and is walking towards the centre part of the installation on the floorboards.

1)Total Duration of Exploration of the Artwork: 6mins:14secs

2)Kinetic Events as Identified as K on Map, and B for Backtracking:

-Event # 1. Time 1:00 To 1:01. Lyne half squats and half jumps as though testing the material on which she stands for sound or for strength.

-Event #5. Time from 1:38 to1:40. Something caught her eye and she goes back a few feet to look.

-Event# 7. Time 1:40 to 1:44. Lyne bends down from the waist to get close to some plants or flowers in the flowerbed. She is moving her head again to left and right and left again, as though comparing two things. When she leans down she crosses her hands behind her back. Her hands stay crossed behind her back for a long time from 1:40 to 1: 53.

3)Using Senses: Identified as S on Map

Event #8. Time 1:53 to 1:56. Touch: Lyne is still paused beside the flowerbed. She releases her right hand from behind her back where it was crossed with the other and touches the leaves of a plant, then the leaves of another plant. She straightens her back up, but stays stopped on the spot and looks again from right to left as though she is looking for something. Once again she crosses her hands on the small of her back; they stay crossed until she leaves the inside of the shed

Event #17. Time from 4:40 to4:45. Touch: she touches the leaves of plants.

Event # 18. Time from 5:02 to 5:04. Touch: she hold in her hand what looks like a flower bud.

Table 1: Excerpt of the Descriptive Record of Events for Lyne (Expert #1)

The preparation of a questionnaire was also informed by the work of Csikszentimihaly and Robinson (1990). "The Art of Seeing" is an account of the aesthetic encounter with works of art such as paintings. This research report looked at defining what constitutes an aesthetic experience with art, but it also examined the question: "Can people be helped to experience it more often?" (Csikzentimihaly and Robinson, 1990, pxiii). As a result of their study, Csikzentimihaly and Robinson identified four aesthetic dimensions: the perceptual-formal, the emotional, the intellectual, and the communicative dimensions. These dimensions of aesthetic experience have informed some of my interview questions. Yet, to better suit the purpose of this study I have greatly expanded on the two sources of inspiration to also include questions about the uses of all the senses and about the kinetic aspects of the experience.

Interview Questions

The semi-structured interview conducted during Activity 2 was guided by the following questions presented in Table 2 and 3. The purpose of this interview was to further document the participant's experience with the installation *Pomme de parterre*.

Interview Questions for Activity 2, Questions 1 to 4

1) What are your first impressions about the work of art?
a) What did you touch?
b) What did you smell?
c) What did you taste?
d) What did you hear?
e) Did you have any other sensations?
Sub-questions:
-Was any sense more solicited (requested, addressed) than another?
-Were you surprised that the work of art required you to use one sense more than another?
Did any of these sensations make you appreciate or understand the work of art?
2) Could you talk about your experience of exploring the work of art by moving through it?
a) Did you retrace your steps?
b) Did you pause to look and listen?
c) Is there any part of the work of art that you were unable to access or to explore by moving through it?
d) How did the kinetic aspects of movement and body make you appreciate or understand the work of art?

3) What did you think about?

Sub-questions:
-Were you reminded of something in your past?
-Were you reminded of another encounter with a work of art, or experience with some kind of exhibit or a cultural event?
-Was that encounter similar, different, pleasant, or unpleasant? How?
What did you imagine?
Sub-questions:
-Did part of your experience have a dream like quality?
-Where did your mind take you?
-Did you imagine travelling or being somewhere else?

4) What emotions did you experience when looking at the work of art?
Sub-questions:
-What was the first emotion you experienced?
-Were the emotions positive?
-Were they negative?
-Was it curiosity? Bafflement? Frustration? Fear of the unknown?
-What was the strongest overall emotion you experienced?

Table 2: Interview Questions for Activity 2, Questions 1 to 4

Interview Questions for Activity 2, Questions 5 to 9

5) Did you read the written commentary presented on the pedestal at the entrance of the site?
a) How informative was it?
b) Are there things that are not mentioned in the text that you noticed and would like to talk about?
Sub-questions:
-Did you agree or disagree with the written commentary?
-Did it help you appreciate the work or not?
-Did it make a difference?
6) What do you think this artwork is about?
Sub-questions:
-What is the connection between the two main parts of the work of art: the planted vegetation and the small shelter?
-Is your interpretation of the work of art different in anyway from what you read in the text in the pedestal?
-If you did not read the information on the pedestal, would you like to read the information sheet now?
7) Assuming that you have the time and the opportunity; does this work of art stimulate you to create or produce something of your own?
Sub-questions:
-For example, reproducing a scientific experiment?
-For example, rearranging your garden?
-For example, create a work of art?
-For example, writing a poem or a response?
-What shape would it take?
-What materials would you use?
-What senses would be required from your viewers to experience it?
-Where would you do it?
-Would it have a message for an audience?

8) What were your expectations of the works of art?
a) Were they met?
b) Were your expectations of the works of art in contradiction with what you saw? How?
c) Did this work of art meet your expectations for a work of art?

9) The prescribed portion of the interview is now over. Is there anything you would like to add about your experience?

Table 3: Interview Questions for Activity 2, Questions 5 to 9

Fine Tuning the Interview Questions

After the first two interviews, once the data collection was underway, I felt I needed to be more precise with question 1 and question 2 in order to solicit more comments about the connections between senses, movements, and the appreciation or understanding of the artwork. As to not influence the participants' answers, I decided to add two more sub-questions. For question no. 1, I added this : Did any of these sensations make you appreciate or understand the work of art? For question no. 2, I added: How did the kinetic aspect (movement and body aspect) make you appreciate or understand the work of art? However, this last addition did not yield good responses: this question seemed incomprehensible to many participants. So, finally, after participant no 5, I modified this question by including the addition: " as opposed to a sculpture or a painting". Finally, as I was interviewing many participants who I know are teachers, I added a sub-question to question 9: "As a teacher, how does this work of art influence you".

Treatment of Data for Activity 2

Written Transcripts

The interviews were conducted immediately after participants finished Activity 1, and took place in a quiet area located between the two entrances to the artwork. A bench, a cool drink and shade provided by a large pine tree completed the setting. As briefly described before, all of the data for Activity 2 was captured using a video camera. This video footage was essential for producing the written transcripts of the interviews. In total, I conducted 10 individual interviews: that is, one for each of the

10 participants. Because these interviews were semi-structured, the length of the interviews varied considerably from one participant to the next, lasting between 34.67 minutes and 61.92 minutes. The written transcripts of Activity 2 vary in length from 9 to 22 pages. In all there are 129 single-spaced pages of transcripts relating to this activity. The content of the transcripts were used to identify patterns of behaviors and to compare the behaviors between experts and non-experts.

Activity 3: Video Elicitation

Procedures Specific to Activity 3

It was my expectation that research Activity 3 would complement and enrich the data collected in the previous two Activities. In Activity 3, participants view the video recording of their exploration of the art work in Activity 1. Participants are asked to comment on and clarify, if needed, the behaviours captured on video. Therefore, Activity 3 documents the participants' own perception of his or her experience of the artwork, in a method similar to photo elicitation. Photo elicitation is a way of gathering data that is frequently used in visual inquiry in which researchers display photographs of events to participants in order to solicit remarks about them (Hoonaard, 2012). As a result, photo elicitation promotes reflection and introspection and " often leads to rich, personal narrative" (p. 160). Upon reviewing previous activities, participants' perceptions may be different than when they were first encountering the installation. In addition, reviewing the video recording of

Activity 1 may help participants to remember certain points after the event. The pilot project demonstrated this to be the case.

Description of filming methods, equipment and procedures

In Activity 1, a video recording of each participant was produced while he or she explored the installation *Pomme de parterre*. After the Activity 1 and Activity 2 were completed, the participants returned with me, the researcher, to a cottage five minutes away from the Reford Gardens. There, the video recording of Activity 1 was downloaded from a video camera using a fire wire connection and a video editing software program on a computer. The HD Sony Handicam provided an exceptionally clear picture on its LCD screen and also as its video playback through a fire wire cable on the iMac 21 inch computer screen. Its night view provided exceptionally vivid rendering of the participants' behaviours while they were inside the almost complete darkness of the potato shed. The HD camera was compatible to record the image of the video on the computer screen. The replay quality of sound and image were fantastic, allowing for crystal details. The high speed downloading technology and iMovie software technology made it easy and fast to download the tape from the camera into iMovie, and participant friendly to review. All of the technology was easily available and relatively cheap to acquire for a project of this scale.

Once the video transfer was completed, the video camera became available to be used, once again, as a data-recording device. The camera was set up at a distance and at an angle that enabled my assistant to video tape the participant in such a manner that he could record both the participant as well as the video playback that

he or she was about to watch on the screen. My assistant recorded both the video playback on the computer screen and the participants' verbal responses to this video playback as yet another form of data: the participants' reaction upon seeing their own exploration of the work of art during Activity 1. The participant was given control over the playback of the video data from Activity 1. By pressing the space bar on the computer keyboard, she or he was free to start and stop the video at will so that she or he could verbally comment on the video images and soundtrack.

Fine Tuning the Instructions for Activity 3

The instructions to participants were to comment principally on activities or events which they had not as yet talked about. But they were also asked to elaborate on any topics emerging from the review of the exploration of the installation in Activity 1 or discussed in the interview of Activity 2. After completing the research session with the two first participants, I decided to be more specific in my instructions accompanying the viewing of the video tape in Activity 3. This is because of two factors. First, the transfer of the data from the video camera to the computer took a as long as 90 minutes. It was technically easier to transfer the video recording of both Activity 1 and Activity 2 at the same moment. Second, sometimes it was simply too late in the day to conduct the last activity . Therefore, I sometimes decided that it was best to wait until the next morning to conduct Activity 3. These delays meant that participants might not fully remember their answers to the questions in Activity 2 conducted on the previous day. Because of these delays, and because I wanted participants to give me new information instead of repeating what they had

already provided in Activity 2, I added the following to my instructions for Activity 3: "You can touch upon any topic discussed in the interview such as: senses and sensations, the kinetic aspect (movements and trajectories), thoughts, imagination, emotions, interpretation, and creation. You can touch upon anything else that comes to mind while viewing the video". So, starting with the third participant, these additions became part of the instructions provided to participants at the start of Activity 3.

Treatment of Data for Activity 3

Written transcripts

The written transcripts for Activity 3 comprise participants' verbal responses upon viewing the videotape of their walkabouts in the installation *Pomme de parterre* during Activity 1. These transcripts are noticeably shorter than those of Activities 1 and 2; here participants were asked to comment principally on activities or events not previously talked about and to elaborate on any topics needing clarification as a result of their participation in the first two activities. Activity 3 transcripts vary between 2 and 10 pages; in all there are 50 double spaced pages.

Coding and Tables

To code the written transcripts of Activity 3, I used inductive analysis, to identify patterns that best described the results. These patterns were compiled into the following categories: new realizations, expansions of previous ideas, and explanations. Each group of findings are discussed in Chapter 6.

Verification of the Coding

To ensure that the coding criteria were clearly and consistently applied, a research assistant reviewed all of my codings for Activity 3. My research assistant has an M.A. in Art Education. She was chosen for this task because she has experience conducting similar work as a research assistant for other research projects. In order to prepare for this task, my assistant was first trained in the proper use of the coding template. After completing her training, she was asked to individually code each of the transcripts for Activity 3 on her own. I also completed the same task on my own. We then met, compared our individual coding results, and discussed any differences in coding. Initially, the rate of inter-coder agreement was quite high, around 90 percent. For the units where there was disagreement between the two coders we resorted to discussion as a method to reconcile any coding discrepancies. To do this we settled on the coding that was the closest to the template while also aiming for coding that was consistent with the coding applied in similar circumstances. With each meeting, we also compiled a valuable list of coding examples that we could refer to.

Summary

In this chapter, I discussed the research orientation and reviewed the pilot projects that led to the adoption of the final procedures for this study. I discussed the

reasons that guided the selection of participants, the use of video documentation, of semi-structured interviews and of video elicitation. I discussed each of the data collection activities. Activity 1 consisted of the videotaped session of the participant's initial exploration of the installation. Activity 2 consisted of the videotaped, semi-structured interview about each participant's own experiences during Activity 1. Activity 3 comprised the video elicitation in which the participants reviewed and commented on the videotape data of their exploration of the artwork in Activity 1. In the next chapter, I will discuss the participants' behaviors as summarized on the maps and in the text records of Activity 1.

CHAPTER 4, RESULTS OF KINETIC ACTIVITIES AND RELATED BEHAVIORS

Introduction

Using the procedures for Activity 1, 2 and 3 described in chapter 3, I collected information regarding participants' kinetic activities and related behaviors, as it informed their understanding and appreciation of the work *Pomme de parterre*. To present the results of the kinetic activities and related behaviors, I refer to the outcomes of the 3 research activities in an effort to yield the most significant information about kinetic activities and related behaviors and also to compare those results between the expert and our non-expert participants. The tables presented in this chapter were created using an enumerative analytic procedure.

Entrances, Use of Pathways and Adherence to Layout

The design of the layout and pathways enabled the participants to experience the essential components of the installation such as the pathways, the stairs, the double doors and a choice of entries and exits. All participants started their walk-about by accessing the installation through the western entrance, although I gave no indication that this was the main entrance or the only entrance into the work. During the instructions communicated to participants for Activity 1, participants were shown an architect's plan of the site and told: "You may explore as much of the area within or around the art work as you like. You may move through the artwork

anyway you want." All participants, experts and non-experts alike, started their walk-about by accessing the work of art through the western entrance. Six out of ten participants, three experts and three non-experts, concluded their visit by exiting through the eastern passage. Four out of ten participants, two experts and two non-experts excited through the western one. The participants' progression through the installation, as indicated on the trajectories map for each participant, show that the vast majority of participants (eight out of 10) used exclusively the pathways designed by the artists. In the outer areas of the pathways, nothing prevented the participants from going off the established pathways. Only Mona, (non-expert #11) and Yvon (expert #12) who had the most experience with visiting works of contemporary art, strayed from the boardwalks. Other patterns of movements that I observed from the maps are the limited uses of perpendicular pathways and the frequent use of the outer corridors. This could be explained by the fact that going around the outer perimeter helped participants to get an overview of the work.

Moving Around and Through the Work of Art

The majority of participants, nine out of 10, circled around the site before deciding on a door to enter. Regardless of their status as an expert or a non-expert, visitors followed the design of the maze-like paths by first going around and then entering the shed, which stands in the middle of the site. But what purpose did circling around, moving around, and moving through the work of art serve in terms of

accessing and understanding the work of art? When asked to talk about her experience in exploring the work of art by moving though it, Juliette (expert #2) describes walking around and through as a means of getting her bearings, figuring out her surroundings, and the layout of the work of art:

> I think I sort of approached it [the potato shed] from the outside, sort of walked around the area first to sort of get an idea of where it was because I can't really tell from the little map you showed me before […]. So then I realized that you could enter it. So I walked around it first, made that connection […]. I went in that door there on your right and then walked through it. But then again a lot of people came in so I had to get out. So I walked around it again. I think the walking around sort of made me realize: "OK, this has something to do with a plant called the potato"(p. 70).

Another of Juliette's conclusions about her kinetic activities is that they helped her explore multiple physical starting points of interpretation:

> You want to make sure that you may approach it from a different way. Because if you come in from a different way, it's a whole new experience. It could be the same thing with a two dimensional thing but with sculptural pieces or something like [that] you have to be able to approach it from different areas. (p. 215)

Robin (expert participant #7) created the most elaborate pathways of all participants. She felt that moving around was a great way to experience the work from all facets and perspectives (p. 140). For Joe (non-expert participant #4) moving around through the site allowed him to put the pieces of the puzzle together as well as getting a global conceptualization of the work of art. Joe (non-expert participant #4) recounts his experience :

> I decided to take a tour around it to understand the whole thing before coming in the [shed] itself because I figured out that is where everything came together. So by moving around it, I saw a first glimpse of what [the work was about]. We were in a potato world. (p. 101)

Samuelle (non-expert #5) thought that walking around provided different points of view and brought about a global understanding:

> Well, I think to move around, to observe it more, to touch it, just walk around and notice the differences from one spot to another, makes it more complete. [You] try to think what the artist was thinking. (p. 112)

For Al (non-expert participant #9) it was also the different perspectives that this part of his experience afforded: “When I first walked on the path, I was wondering what it was all about. It was just a little [shed]. I was just walking around, wondering what was inside. I was walking around to see [it] from different angles” (p. 159).

In sum, as regards the participants' kinetic activities, when it came to circling around and through the installation, there was no difference between the experts and non-experts. The majority of participants - nine out of 10 - circled around once and then decided on a door for entering the shed. These kinetic activities served to provide: 1) a means to get their bearings; 2) a way of attaining different points of views; and, 3) a more global understanding of the work.

Getting "Lost"

Two participants actually strayed off course, and got "lost". Samuelle (non-expert #5) and Nathalie (expert #3) had this behaviour in common. About getting lost, Nathalie (expert #3) confided that she thought that she had to see not only one work of art but many; she was in a hurry to find the others and that is why she exited so fast from the area of the work of art. Samuelle (non-expert #5) also confessed to feeling lost. She had gone far into the exit pathway of the work when she realized that she did not know where to go anymore. Map trajectories show that Nathalie (expert #3) and Samuelle (non-expert #5) were on their way to exit the work of art through the eastern passage when they felt they had to walk back on their steps and come back to the main area of the work of art. These two participants, behaved differently from the other participants by actually getting lost. However, both of these participants eventually found their way back to the work of art under consideration.

Choosing an Entrance to the Potato Shed

As many as eight out of ten participants chose the western entrance of the shed to continue their visit inside. One of the two exceptions, Cathy (non-expert #6), entered through the eastern door of the shed. The other exception, Robin (expert #7,) entered a first time through the eastern door and a second time through the western door. Looking at the map of Robin's trajectory, it is clear that she was trying to cover all potential terrain and activities. When asked to describe how she entered the work she said: "I tried both. I tried to go in from one place and tried to go out. I think, I tried to use every trajectory that I could." (p.140). We saw before that, for a majority of participants, there was a strong motivation to walk around the pathways to get their bearings and the general picture of the site before entering the shed. This means that a majority also had the opportunity to enter through the eastern entrance but decided to come all the way back to the western entrance before going inside. Earlier, we saw that a majority of participants entered the general site of *Pomme de parterre* using the nearest entrance and exiting through the furthest. As regards entering the potato shed, a similar pattern emerges: participants enter using the nearest entrance. As for the exits, only four participants who entered using the western entrance chose the (furthest) eastern doorway to exit. The few participants who chose to enter through the eastern door all exited through the opposite door.

Emotional Reactions

Many participants experienced emotional reactions inside the potato shed as the resonant and visually stunning installation of the potato battery was revealed to participants for the first time. Unfortunately, due to the limitations of our video recordings, some affective reactions occurred without being captured by the camera. This occurred when, for example, the videographer was following the participants into the shed and therefore could not record their facial expressions or expressions of surprise. Sometimes the door of the shed would close before the videographer had time to enter, thus an early emotional reaction could not be documented. Aside from the limitations of the video recording, some participants were less open about their emotions than others; there gave no outward signs of their emotional reactions, if any. It is for these reasons that I refer to a combination of data sources -- the descriptive records of behaviors, the interviews and the video elicitation recordings-- in order to produce a clearer portrait of the participants' emotional responses. I will start with the experts' reactions.

While there is no evidence of an emotional reaction on her video recording, in the follow-up interview, Lyne (expert #1) reports feeling surprise upon entering the shed: "What is in there? There is a surprise in there?" Because you can't look in--there is no window or anything--see, you don't really know what is in there"(p. 66).

The descriptive records of behaviours for Juliette (expert participant #2) show two different emotional reactions, laughter and smiling. She explains:

> I think I kind of laughed when I was inside and I [had an] "Ah! ha!" moment when I realized: "OK, potato plants, potato names". I like the walkway, the way it gathers you in. Then, when you go inside, it's so different [that] you have to laugh. It was really interesting. So I found a little humor in […] the fact, that potatoes [are]making sound (p.70).

Nathalie (expert #3) qualifies her emotional reactions:

> Oh! I was laughing, I was definitely laughing when I first went in. I don't know why I found it to be really funny. Not hysterically laughing but […] when I came back in I was giggling to myself. It was like the potatoes are talking to me (…) but I still felt a sense a humour in it. So it was a positive emotion for sure because I was laughing; that is a good sign (p. 88).

Robin (expert #7) did not have any affective reactions nor did she mention any. But Yvon (expert #12) recalls: "I was really surprised this time" (p. 191), and then he adds: "I laughed when I came in. That was, I think, my first sensation of the piece. And [I found it] witty" (p. 195).

Now let us examine how the non-expert participants reacted upon entering the shed. As soon as he entered, Joe (non-expert #4) laughed out loud: "It made me

smile actually, when I first got in and I saw all the potatoes, I was like: "Hee! Hee! That's funny!" (p. 98). Samuelle (non-expert #5) did not react immediately but later said: "I was kind of surprised that was in there. I was expecting something more along the line of paintings or sculptures to be displayed in there. I was surprised" (p. 113). Cathy (non-expert #6) reacted very timidly with a short, shy smile. Al (non-expert #9) did not have any emotional reaction but confessed to seeing the humour in being presented with a room full of beeping potatoes. For Mona (non-expert #11) it was a particular experience. It was the second time that she visited the artwork. She said that because she had seen the work previously, she did not react emotionally this time. However, in Activity 3, while reviewing the video of her participation in Activity 1, Mona laughed out loud and at length at the reactions of *other* visitors to the work of art and to their exchanges with the exhibition technician[14].

To sum up the emotional reactions, experts and non-experts alike (four out of five for both groups) experienced and expressed a range of emotions that went from smiling to surprise to laughter while figuring out how the pieces of the work came together. A small difference between the reactions of the experts and non-experts is that the non-experts were on the whole more reserved about their emotional reactions. It is likely that experts know that art attempts to conjure up emotions and that reacting in such a way is more than acceptable. By contrast, non-experts might not know if it is acceptable to overtly react in an emotional way to an art installation

[14] These other visitors were not study participants. They were visitors to the Festival who happened to visit the work *Pomme de parterre* at the same time.

such as this. Mona (non-expert #11) was the only non-expert with extensive previous experience with contemporary art. For this particular piece, she chose to direct her attention, not to her own affective responses, but instead to the emotional responses of the other visitors who were not other participants of the study and who happened to be present on the site at the same time as her.

Interactions with Other Visitors and the Art Technician

Many participants have referred to the technician employed to maintain the installation. Indeed, for this work of art to perform well, that is, to produce sounds and light, it needed to be regularly maintained. Electrodes were inserted into all the potatoes thus connecting them to each other and to the sound and light devices. The blades of the electrodes had to be cleaned often in order to maintain their conductivity. It was not planned that the participants would interact with the technician or with other visitors. It just happened that participants visited the installation at the same time that the technician was maintaining the work or that other visitors were also present. Only two out of five experts had interactions with other visitors or the technician, and these interactions occurred only once for each participant. Also, interactions between experts and other visitors or the art technician happened outside of the potato shed. But with the non-experts, four out of five of them interacted with other visitors or the technician, and these interactions occurred inside as well as outside the potato shed. Also, two out of the four non-expert participants who did have interactions with other visitors or the art

technician had multiple interactions. I turned to the descriptive records of behaviors for Activities 2 and to the written transcripts of Activity 3 to find more information about participants' interactions with the technician and other visitors. I found that while most experts expressed their preferences at being alone to explore the installation, Mona's (non-expert #11) and Al's (non-expert #9) testimonies illustrate the kind of information non-experts obtained by interacting with other participants and the art technician. Mona explained: "Oh! It can produce electricity […using] potatoes. That buzzer and that little light is produced by the energy of the potato. That's what [the technician] says. He was sanding the little pieces of metal that are in the potatoes" (p. 274). When other visitors to the work of art arrived inside the small confines of the potato shed, Al (non-expert #9) let the people in and settled in to listen to the ensuing exchange they had with the technician. Reviewing this situation in Activity 3, Al reflects: "So, he's a bit of a guide" (p. 274). Few experts had very few interactions with the art technician or other participants while most non-experts had informative interactions with both the other visitors and the art technicians.

Verification Behaviors

Results of Table 4 and 5 show that there is much more kinetic activity on the part of the expert participants in the categories of *bending down*--this category groups together bending down, kneeling and sitting--and of *retracing steps*. Results show a

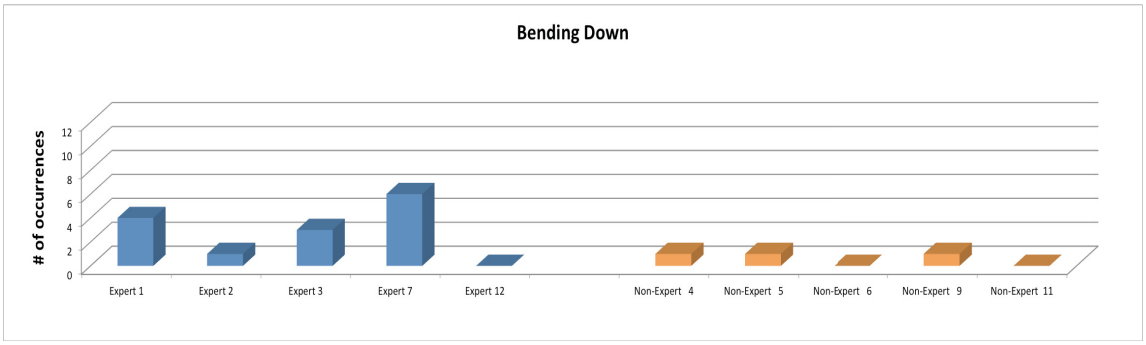

Table 4: Bending Down: Experts and Non-Experts

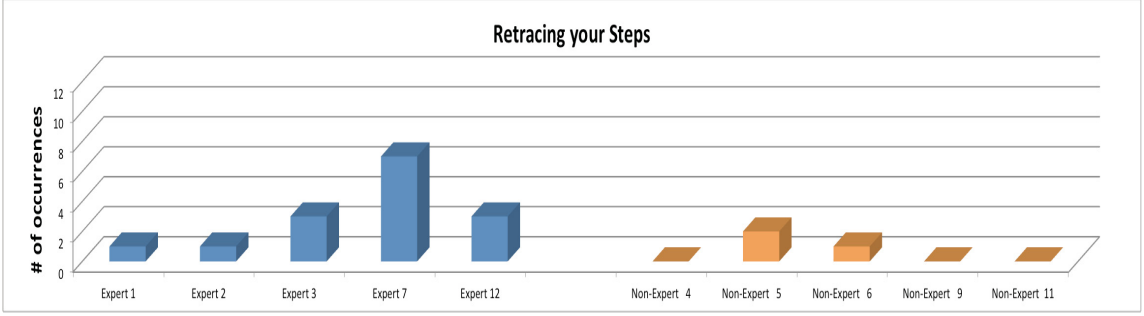

Table 5: Retracing Steps: Experts and Non-Experts

marked difference between the two groups as all expert participants retraced their steps at some point in their walk around the work of art while only two non-experts did so. Experts retraced their steps for a total of 15 times while non-experts behaved in this way only three times. Looking at the descriptive record of participants' behaviors, I unearthed more evidence that kinetic activities like bending down and retracing steps were clearly more varied and more frequent in the expert group than in the non-expert group. For example, Lyne (expert #1) engaged in a variety of kinetic activities such as bending down, kneeling down and retracing her steps. As we can see in Table 4 and 5, Robin (expert #7) is an outlier in

these categories: she retraced her steps eight times and bent, knelt, or sat down six times. Yvon (expert # 12) did not use activities such as bending down to explore the work of art but he did retrace his steps. Non-experts did not make as much use of these types of movements as the experts did. Samuelle (non-expert #5) did retrace her steps and knelt down once. Al (non-expert #9) knelt down once as did Joe (non-expert #4). The descriptive record of participants' behaviors as well as the interviews and the elicitation activity revealed that, generally, for both experts and non-experts who engaged in bending down, kneeling down and retracing steps, these verification activities were useful to have a closer look at specific items such as the light in the glass jars, were useful to approach another part of the work from a different point of view thus providing new starting points for interpretation, and they also deepened participants' comprehension of the work of art.

Attempts to Look in Through the Roof

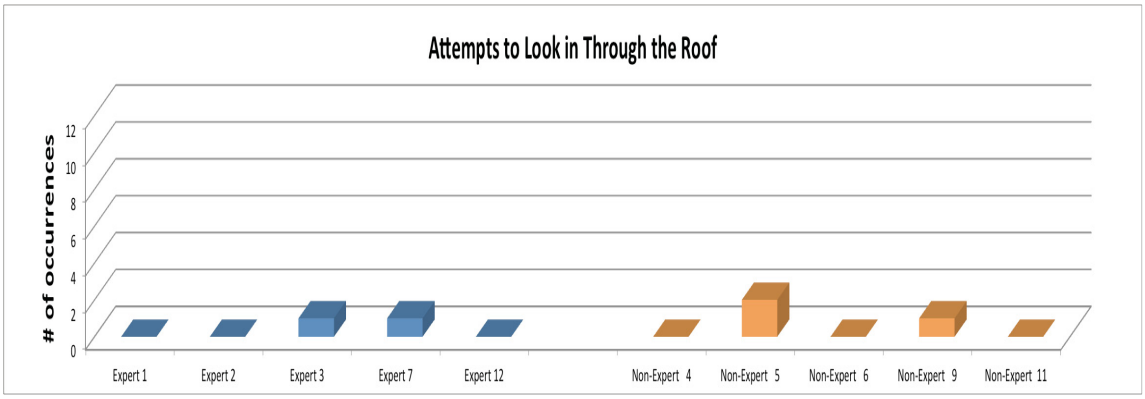

Table 6: Attempts to Look in Through the Roof: Experts and Non-Experts.

Here, I must explain the architecture of the shed so that we can understand why the participants attempted to look in through the roof by first kneeling to get under the roof and then hoisting themselves up to look down inside the shed (see figure 6). The roof of the shed extends a couple of feet over the walls of the shed so that it is possible to go underneath it. Also, the roof at that point is made of thin slabs of wood, which are interspaced. This makes it is possible to see and to hear part of the inside of the shed from this position if one hoists one self up in order to look down. However, there is no difference between the two groups regarding attempts to look in through the roof of the shed. Only two expert participants (Nathalie #3 and Robin #7) and two non-experts (Samuelle #5, and Al #9) did this. Attempts to look into the shed through its roof were not as frequent as the other kinetic activities. However, this activity, as with many other kinetic activities, did provide yet another point of view from which to approach the work of art, as Nathalie, (expert #3) explains:

> So then I looked underneath the roof and saw that it was kind of open. You could see inside. So I was looking at the work from outside inside. I liked that. I kind of felt like a voyeur. You know looking through a peephole […] like Alice in Wonderland. Also [the work appeared] bigger […] because I was looking in (p. 84).

Stopping and Time Spent Exploring

Participants were told that they needed to spend a minimum of five minutes and a maximum of 20 minutes exploring the work. Referring to Table 7, we see that

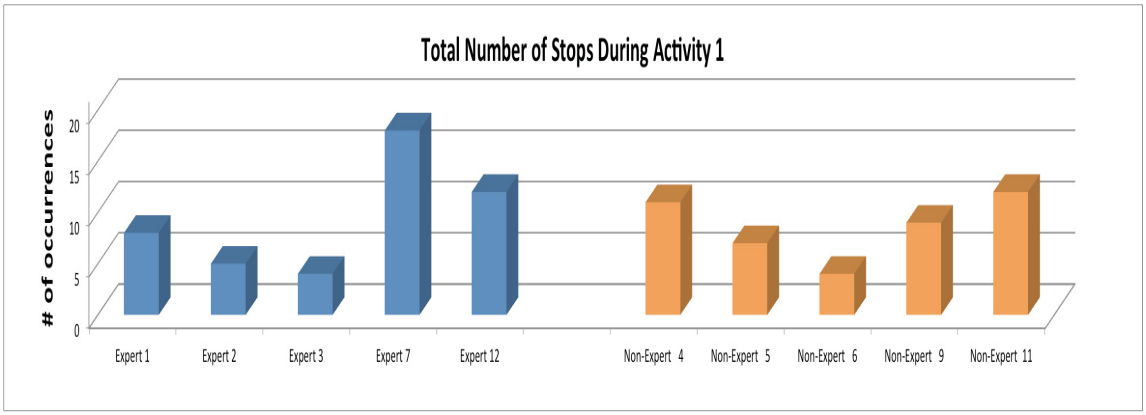

Table 7: Stops: Experts and Non-Experts.

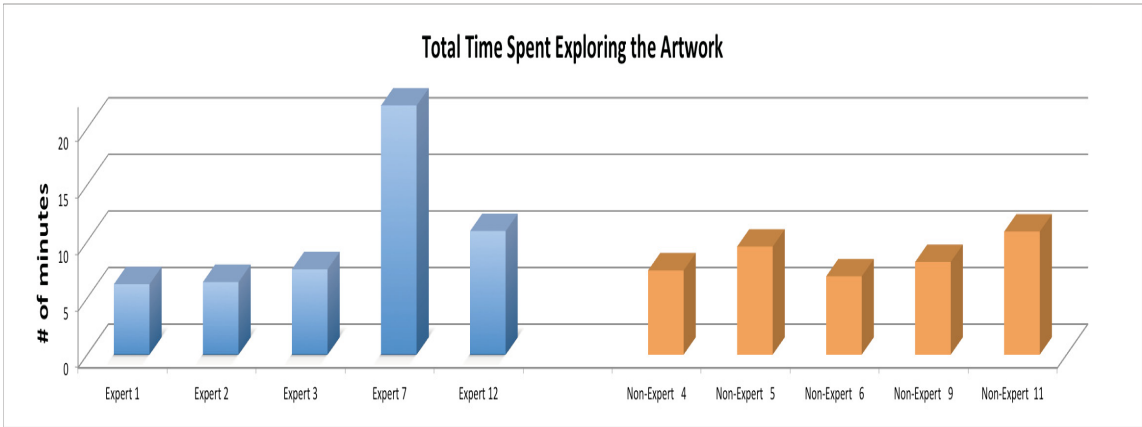

Table 8: Time Spent Exploring: Experts and Non-Experts.

experts stopped an average of 9.4 times compared with an average of 8.6 times for the non-experts. Referring to Table 8, we see that the average duration of exploration is 10.6 minutes for the experts and 8.6 minutes for the non-experts. Even though experts stopped and paused, on an average, more often than the non-experts, both groups often engaged in these activities. In the interviews and elicitation activities, participants commented about stopping and pausing. What

emerged from the interviews was that both experts and non-experts do not usually take the time to stop and study a work of art. Asked whether, in this study, the time imposed to explore the work affected her experience, Lyne (expert #1) says:

> Yes. Because it was set up. I think that if I did it on my own, I probably would have gone more quickly and I may not have tried to figure it out in the same way that I did this time. I don't think normally I would walk that slowly (p. 206).

Nathalie (expert #3) describes the usual pattern she follows while engaging with works of art:

> I was happy that I had the time to explore the work […]. I couldn't believe that I was given five to 20 minutes to spend with one artwork. That is long. I guess I don't usually spend that much time[…]. I guess there are some circumstances where I can spend that much time with an artwork but I guess it's a liberty I don't give myself. I [usually] try to see everything [since] I don't want to miss something (p. 90).

Yvon did not enter the shed during his first visit to the installation site the previous year but he did so upon his participation in the study. When asked what was different about the second visit when he entered the shed and the previous visit when he did not venture inside the shed, he explained that, this time, he took more time to experience the work. In doing so, he read the text on the floorboards which

enabled him to made the connections with all the other elements of the work, and consider the shed as part of the installation.

Reading the Information Panel

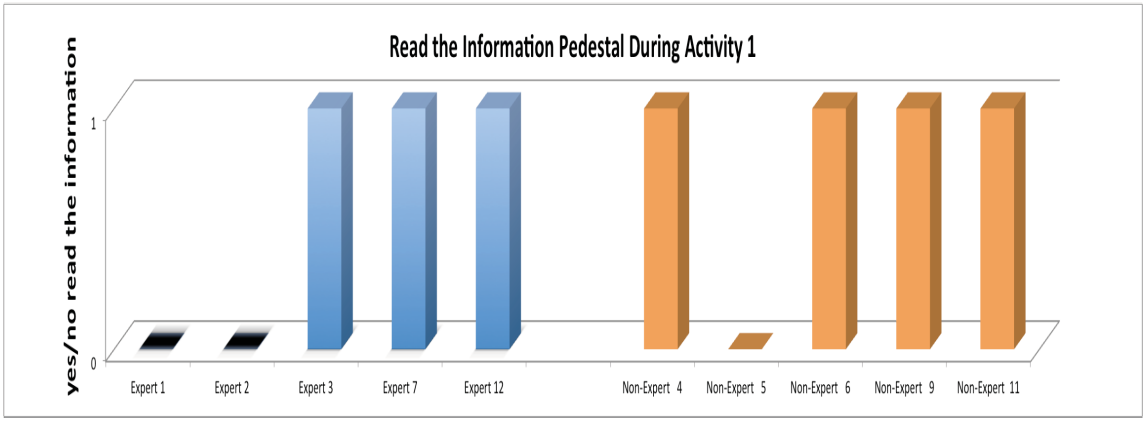

Table 9: Reading the Information Panel During Activity 1

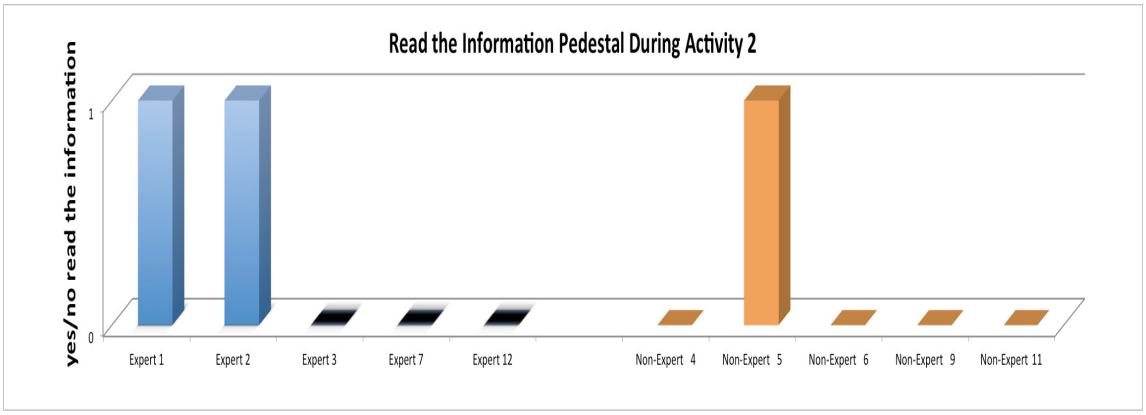

Table 10: Reading the Information Panel During Activity 2

An important decision participants had to make was whether or not they would stop to read the information about the art work that was provided on a information

panel at the western entrance to the site of the work. In the research procedures, participants were prevented from doing so before they had explored the work of art; this was in order to allow them to form their own opinions and interpretations of the work. However, they could do so at the end of their exploration in Activity 1 if they so wished. If they had not read the information on the panel at the end of Activity 1, participants were given another chance to do so during the interview in Activity 2. All experts and all non-experts decided to read the information on the panel either after completing Activity 1 or during Activity 2.

Although participants were not questioned about being prevented from reading the information before their exploration of the installation, I consider it relevant to relay that some participants considered having to wait until after their exploration of the work a positive aspect of their experience. Lyne (expert #1), Joe (non-expert #4), and Al (non-expert #9) declared that not reading the information before their visit was beneficial to their experience. Lyne (expert #1) explained why: "I like that I didn't read it because I got more out of it. If I would have read it, I would have stayed with that. And I don't think I would have tried to figure it out on my own" (p. 64). Joe (non-expert #4) agreed:"Apart from that, it's cool you don't know what it is until you enter the room. It is a good thing you [prevented] me from reading the panel. It gives me a better experience of it [the work of art] in my point of view" (p. 99). For Al (non-expert # 9), reading the information *after* experiencing the installation was a transformative way of interacting with art. He declared that the experience of

reading the information panel afterwards proved more creative and that this may change his future pattern of interaction with works of art:

> it's a good idea to read it after…so you don't go in there with [a] preconceived idea. Your imagination goes and you're trying to figure out […] what is going on. Usually, I read it first, but now, maybe I'm going to start reading it after (p. 166).

In the same way that many participants found that not reading the information before experiencing the installation was beneficial to their interpretive and imaginative powers, many participants found that reading the information afterwards provided them with certain advantages. These participants appreciated the information regarding the functional details of the work as well as the information about the artists' backgrounds and intentions as this explained the foundational idea of the work and the practical aspects of the work . When asked if the information provided on the information panel helped them to appreciate the work of art, Samuelle, (non-expert # 5) summed up well the view shared by many of the other participants: "Yes, to understand where the artists got their ideas from. It helps you understand what their idea was and how they brought it together, how everything works" (p. 115). In sum, some participants agreed that reading the information before one's encounter with the work of art could limit one's view to the information offered and narrow the possibilities of one's interpretations. Yet all participants declared that they welcomed additional information about the work of art when read after exploring the installation.

Summary

Participants engaged in several kinetic activities which provided a number of ways to understand and appreciate the installation *Pomme de parterre*. Participants engaged in the activities of moving around and through the installation, in verification behaviours including bending down and retracing steps, in looking in through the roof, as well as pausing and stopping. Participants' engagements in these activities resulted in the following outcomes: 1) a more global understanding of the work; 2) a deepening of their understanding; 3) the ability to identify and connect all the different material parts and conceptual ideas of the work; 4) a way to construct and understand the spatial dimensions of the piece and to situate their bodies within it; 5) a means to get their bearings and an overview of the installation site ;6) an increase of the points of views, an augmentation of the starting points for interpretation. Because participants adhered to the designated pathways and layout of the installation, they were able to experience the essential components of the installation. Only two participants with much previous experience with installation art ventured outside the designated paths. Participants explained that they did not usually take the time to stop and study a work of art. Verification behaviours such as bending down and retracing steps were much more varied and more frequent in the expert camp than in the non-expert. A small number of experts had hardly any interactions with the art technician or other participants while most non-experts had many interactions with both other visitors and the art technician. The majority of participants expressed a range of emotions that went from smiling to surprise to

laughter while figuring out how the pieces of the work came together. But on the whole non-experts were more reserved about their emotional reactions. Participants formulated the opinion that reading the information panel before one's encounter with the work of art could limit the possibilities of one's interpretations but all participants welcomed the additional information when read after exploring the installation.

CHAPTER 5 RESULTS SENSORIAL ACTIVITIES

Introduction

Using the procedures of Activity 1, 2 and 3 described in chapter 3, I collected data regarding participants' sensorial activities and related behaviors, as they informed participants' understanding and appreciation of the installation *Pomme de parterre*. To discuss the results of the sensorial and related behaviors, I refer to the descriptive text records, the interviews and the video elicitation activities. Taken together, these sources yielded significant information about the sensorial activities of the expert and non-expert participants.

Touch

About half the participants engaged the work of art with their sense of touch. There was little difference in the total occurrences of touch between experts and non-experts. Rather, individual experts Robin (expert #7) and Yvon (expert #12) and individual non-experts such as Samuelle (non-expert #5) and #Mona (non-expert #11) used touch the most frequently. One outlier, Robin (expert #7) had the highest occurrence of touch amongst all participants. Of the two experts that did touch, Yvon (expert #12) has extensive previous experiences with installation art. Of the

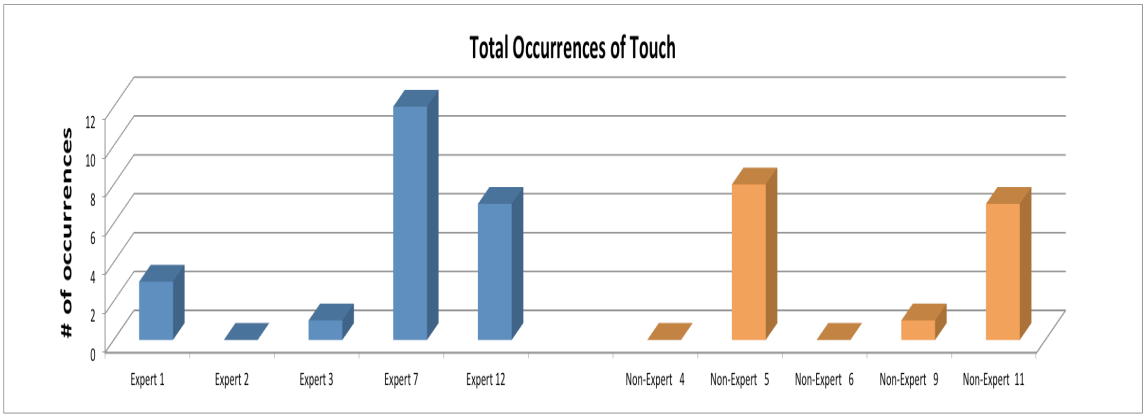

Table 11: Occurrences of Touch: Experts and Non- Experts

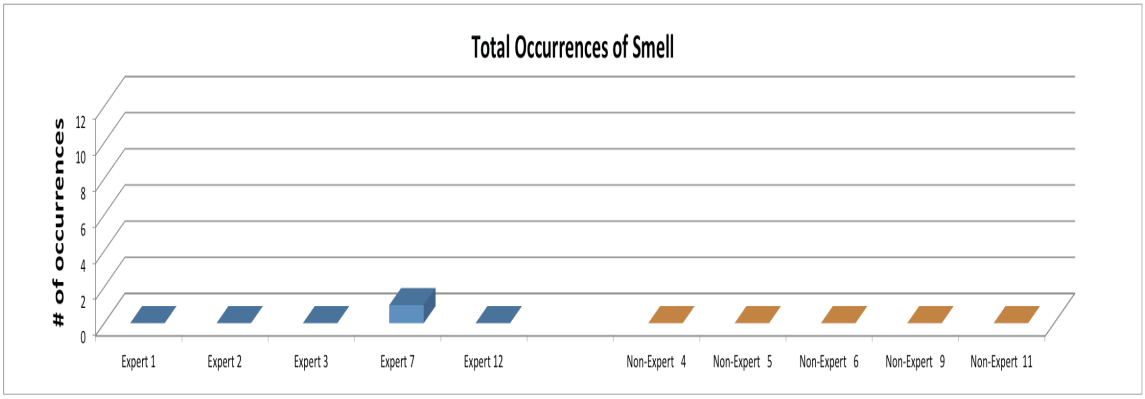

Table 12: Occurrences of Smell: Experts and Non- Experts

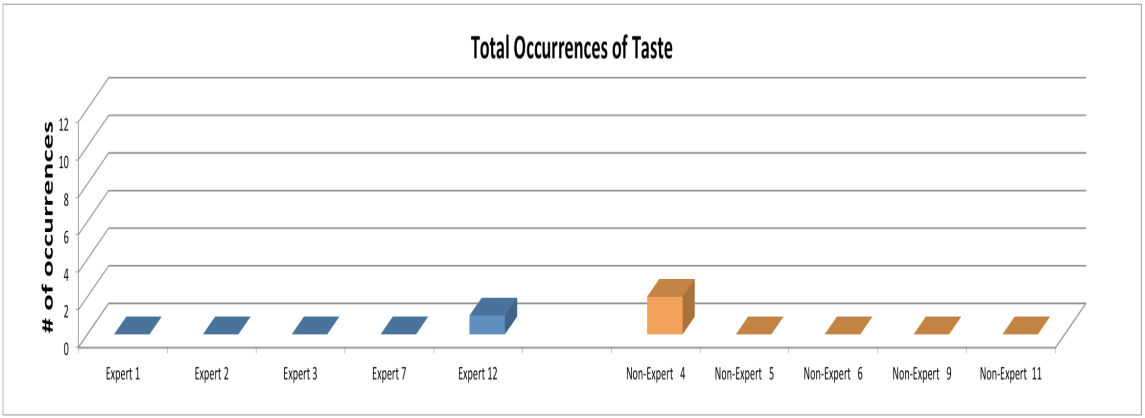

Table 13: Occurrences of Use of Taste: Experts and Non- Experts

two non-experts that touched more frequently, Mona (non-expert #11) also had extensive experience with installation art. Comparing Tables 11,12 and 13 , we can see that the overall number of occurrences of touch is far superior to those of taste and of smell for all participants. Our outlier, Robin (expert #7) has the most occurrences of touch at 12 instances, as well as the most variety, with touch behaviours including picking up and playing with gravel and taking off her sandals to touch with her feet: she was the only participant to do so. It is with the latter gesture that she first interacted with the work of art and found meaning in it; she reported later that the cold feeling of the gravel on her feet provided a hint of the function of the potato shed. Robin also found meaning out of touching the gravel with her fingers. While sitting down on the gravel, she drew a map in the gravel that linked the outside and the inside of the installation. The relationship of the inside and outside of the installation was, of course, central to the meaning of P*omme de parterre* (M. Douesnard, Raw data, 2010, p.263). Yvon (expert #12) had the second most occurrences of touch with five occurrences. He says of his experience:

> I touched the potatoes. I touched the plants. I wanted to see how potatoes grow. I never saw really [up close] how a potato plant grows…I touched the potatoes, I wanted to see if I would "courtcircut" [short circuit] the [flow of electrical] energy (p.189).

As exemplified in this citation, Yvon used his sense of touch to investigate into the meanings and workings of the installation.

Samuelle (non-expert #5) is the non-expert who had the most occurrences of touch with eight in total. She also showed no signs of hesitation when it came to manipulate the wiring. She touched the blades inserted into a potato as if to verify how it entered into the flesh of the potato. She lifted a total of three potatoes to see how they were attached to the wooden shelves and discovered that they were held in place using individual cradles. This is an important feature of *Pomme de parterre,* as the potatoes need to stay in place to be prominently "displayed" – much like a traditional artwork is presented in a gallery. The potatoes also needed to stay in place to ensure an electrical connection. Samuelle investigated this further by touching the wires to see how they were connected between the potatoes; she followed the wiring from one potato to another and from one row of wires to another on a lower shelf. She also took the metal terminals out of two of the potatoes to see if this would have any effect on the installation. Finally she took the glass jar in her left hand to study the correspondence between the lights and the sounds. She used her sense of touch frequently to study how the various parts of the work came together and to understand the essence of the work: "I found you had to touch and [to] see, to really understand it. So it is just showing [that] so much can come from so little. Potatoes are so common, I did not think about the fact that they could […produce] energy." (p. 116).

Mona (non-expert #11) is the other non-expert who touched and manipulated the work of art frequently. She did so a total of seven times. Outside, Mona picked up some earth to examine what it was composed of, in order to understand in which

conditions this vegetable might grow. Later while handling the potatoes, she discovered how the work was constructed, which triggered the following insight:

> Yes, I touched a potato and I saw they are […attached] to the planks…[they] have to be fixed, probably because if they are not fixed they can move. [Understanding its] construction leads to reflection [about] what it comes from, the origin of that (p. 174).

Mona (non-expert #11) and Samuelle (non-expert #5) are the only two participants in all the study to actually dislodge potatoes from their shelves. This use of touch led to an understanding of how and why the potatoes were secured in place. We know that Mona has extensive previous experience with outdoor installation art. For Samuelle, it was her first visit to the Reford Gardens and her first experience with installation art. Yet, I observed that she was naturally curious and that she used her fingers as investigative tools. These two non-experts, one with previous experience and one with no previous experience with installation art, used touch to the point of actually handling the potatoes and discovered an important aspect of this installation, which is displaying the potatoes in a particular way to both maintain functionality and to impress visually.

Although it was clearly stated in the procedures that participants could touch everything – that it was perfectly safe to do so - we agree that some of the elements of the artwork were not inviting to the touch. These were mainly the wires connecting the potatoes together. But we will see in the next section that the main

reason for not touching the part of the work inside the shed was not the wiring, but something else.

In sum, there was not much difference in the number of occurrences of touch between non-experts and experts. Where I did find similarity is between two participants with hight occurences of touching, Yvon (expert #12) and Mona (non-expert #11). This similarity is their extensive previous experiences with installation art. Overall, about half of the participants engaged the work of art with their sense of touch. Touching informed participants on many aspects of the work. For example, its coolness informed on its function to preserve the potatoes. Touching the plants and the leaves served to identify and discriminate amongst them; touching the earth informed on the type of conditions in which potatoes plants might grow. Touching to the point of manipulation, participants discovered that potatoes were held in place for purposes of display and for the purposes of maintaining an electrical connection.

Smell

We can see by looking at Table 12 that there is only one occurrence of the use of smell and, not surprisingly, this activity was engaged in by our outlier, Robin (expert # 7). But there is more to be found on this topic by referring to the other data collecting activities. What other information about smell can we access by

scrutinizing the data from the interview in Activity 2 and the elicitation in Activity 3?

Expert Participants and the Sense of Smell

During Activities 2 and 3, Lyne (expert #1), reports that inside the shed there was a "damp basement smell" and that:

> Well, you do smell the environment around. Spruce trees, pine trees, so there is a smell of nature on the outside. So it's clean and fresh outside, and inside it's more musty, contained and not much air circulating. It's kind of [the] opposite of the outside (p. 56).

The meaning she extrapolated from the smells comes from the contrast between their sources: outside or the inside the shed. This corresponds to her interpretation of the work of art:

> I think that the plants represent growth and it's positive. The plants are being nurtured by nature. [They are] out in the light, [the] rain, and [have access to] all the nutrients from the earth. [They are] growing, [they are] healthy, [they are] alive. And what is inside is dead and decaying and it's in darkness. So it's the antithesis of what is on the outside (p. 64).

Juliette (expert #2) used some of the same adjectives as Lyne (expert #1) to describe the smells she encountered: “damp” and “musty”. She also found some contrast between the outside and the inside part of the work:

> Just walking outside there are so many smells to begin with (…) smell inside is kind of stuffy, but it wasn’t really a [smelly] thing either. Stuffy, sort of like being in a basement. A little damp, a little musty, a little potatoey […]. (p.69).

Smell gives some clues to the purpose of the work as it informs Juliette of the contrasts between the outside and the inside and of the function of the shed. Robin (expert #7) and Yvon (expert #12) also experienced a variety of smells from both the outside and the inside and they noticed how different they were. For Robin (expert #7), the sense of smell occurred in combination with the other senses.

Non-experts Participants and the Sense of Smell

Joe (non-expert #4) is another participant who recognized differences between the outside and inside smells. Joe also had a distinctive experience because he ate a flower before going into the potato shed, which, according to him, diminished his sense of smell once inside. For Joe, smelling was linked to memory as he recalled a personal experience: “But it smelled a bit like [a] basement like the cold room at my mom’s place where we keep the potatoes and the wine bottles”(p. 100). Samuelle (non-expert #5) was also aware of the contradictions in the different smells. What is remarkable about her experience is that the smells caused her to consider using

smells as a material to create a work of art. When asked what senses would be required from her viewers to experience her own intended work of art she replied: "the sense of sight, of smell because I love the smell of flowers and I think it would be part of the experiment"(p. 118).

Cathy (non-expert # 6) also found differences in the outside and inside smells and, importantly for her, smell was the sense that provided a starting point for the interpretation of the work of art. The sense of smell brought back memories as well as a connection to the sense of taste:

> I guess, just being outside reminded me of being in the country, outdoors activities. [It] brings back you know, the similar smells […]. And the smell of potatoes! Those actually bring back [the] cutting of potatoes, making mashed potatoes, making French fries, you know. (p. 125)

Like Samuelle (non-expert #5), Cathy (non-expert #6) considered the possibility of using the sense of smell – along with other senses- as a material for producing her own artwork. But she is the only participant of the study to declare that: "smell, I guess, is the [sense] I used the most" (p. 129). For Al (non-expert #9) smell was heightened by the low visibility inside the potato shed and was also connected to his sense of taste (p. 160). Mona (non-expert #11) is another participant who appreciated the difference between the exterior and interior qualities of scents. Like

Al (non-expert #9), Mona's sense of smell was heightened by the darkness inside the shed (p. 175).

In sum, there was a major similarity in the use of smell between the expert group and the non-expert group. The large majority of experts and the large majority of non-experts found meaning in the contrast of the smells to be found outside and inside, which is one of major themes of the artwork. For Lyne (expert #1), this corresponded to her own interpretation of the work of art; for Juliette (expert #2) hearing overwhelmed her sense of smell, and, for Robin (expert #7), smelling occurred in combination with other senses. Samuelle (non-expert #5) and Cathy (non-expert #6) both expressed a desire to include smell as a material for future art making of their own. Cathy was the only one who declared that smell was the sense she used the most. Two non-expert participants linked smells to memories of past experiences (Joe and Samuelle), while two other non-experts found their sense of smell heightened by the darkness of the shed (Al and Mona). The sense of smell was found important as a possible starting point for interpretation. Smell was found to function simultaneously with other senses and especially the sense of taste. Smell was linked to memories of past experiences.

Taste

We can see from Table 11 that only two participants, Yvon (expert #12) and Joe (non-expert #4) ventured to use their sense of taste. I will first examine the data of these two participants in order to determine if and how the sense of taste brought

them to some appreciation or understanding of the work of art. I will then proceed to look at the interviews of the other participants to search for clues that might suggest whether the sense of taste was relevant for their art experience.

For Yvon (expert #12), taste provided information about the workings of the piece. "I ate a flower. A capucine [nasturtium]. It was very good. They put [those] two really traditional flower plants, those plants [to] keep away bugs" (p. 190). For this expert, the notion of taste was at part of his interpretation, the artistic potential of food as he described how well the underlying artistic power of the lowly potato was explored (p. 189).

Joe (non-expert #4) ate two of the edible flowers. For Joe, his interpretation of the work of art was related to the function of the potato as food:

> They [potatoes] are a part of human [nutrition], earthy food you can produce energy with. It [the installation] makes you think as well, [energy] doesn't have to be light and sound. When you eat [a potato] you convert it to energy as well. So the connection is life, living plants, food that is available to you and that can produce energy as well. (p. 102)

For Joe, taste was connected to past experiences, which gave him the initiative to eat the flowers:

> I tasted capucine [nasturtium]. It's the little flowers, orange and yellow. They are colourful and nice and are used (…) in salads. I used to grow them to put in salads, so when I saw them, I [wanted] to taste them to experience the taste of them again. It has been a while since I've had them. (p.100)

Although she did not actually taste anything directly, Nathalie (expert #3) experienced taste vicariously though memories about food:

> …I did not taste anything. But I guess there was almost a sense of, an imaginary sense of taste because I was remembering food made by my grandmother…I am pretty good at that response of being able to imagine what things taste like so I guess there was that taste response (p. 89)

For Nathalie, her interpretation of the installation art was also based on the function of the potato as food: "if there is energy in that when we eat it, then there is energy in us" (p. 92). Robin (expert #7) was the third expert and participant that linked the food aspect of the work to her interpretation of it: "The link with the potato is very strong because it's something you eat to live and potato is something important in our culture" (p. 149). For Samuelle (non-expert #5) taste was also related to the memory of eating. When asked what she imagined she said: "I was imagining chips, because it made me think of chips. Or eating a big baked potato. Food on my mind" (p. 113).

In sum, there is no apparent difference between the two groups with regards to the use of or importance given to the sense of taste. Yvon (expert#12) and Joe (non-expert #4) ate the nasturtium flowers. A common factor to explain this was that they both had previous experiences eating these kinds of flowers and now had an opportunity to renew the experience. For Nathalie (expert#3), Joe and Samuelle (non-experts #4 and #5) the sense of taste was linked to memories of eating. For Nathalie, Robin, and Yvon (experts #4, #7and #12) and Joe (non-expert #4) their interpretation of the work was linked with food. We can agree that the work of art was not exactly an open buffet; the opportunity for tasting anything was reduced to sampling a few edible flowers or raw potatoes. Even so, taste was an important topic of interpretation for many participants. Also, taste was widely linked to the memory of food and to past experiences of eating and cooking.

Hearing

There is no table comparing the occurrences of hearing between experts and non-experts because the data used to compile these tables was based on video footage of participants moving about and interacting with *Pomme de parterre*. Consequently, instances of hearing could not be observed or documented using video recordings. But I can ascertain the importance of its impact on participants' understanding and appreciation of the work of art from the interview and elicitation activities' transcripts, where participants discussed hearing at length.

Hearing was especially significant for Juliette (expert #2) and Nathalie (expert #3). Juliette (expert #2) declared that her sense of hearing was the most solicited sense during her experience with the work of art: "Smell wasn't the whole, you know, it wasn't a big thing in that. It was sound (…). But inside, [I] definitely paused and listened [very carefully]. That for me was the main attraction" (p. 69). Hearing was a starting point for interpretation through which she tried to understand the workings of the installation: "And that was really neat and there was a hiiiiumm, boump, boump. There was a sound that was really special in there and I kept trying to find [out] which potato or which lot of potatoes was making it. I don't know. That is what really got me [engaged], the sound" (p. 69). Hearing influenced her understanding of the work of art by bringing her to another level of awareness:

> It wasn't overly loud. (…). I think if you spent a long time in there you would probably, you know, you would [enter] some kind of meditative state (…) Because it has that kind of chanting (…). Sort of like a chant where you can [move through] different pitches (…). They sort of influence your awareness and your state of mind. (p. 70)

She even talks of understanding the installation through her body instead of through the more usual intellectual faculties:

> I am not very knowledgeable in contemporary art but I think if you just open yourself up and let it happen and let the experience [unfold] instead of

> intellectualizing and trying to figure it out you [can end up] seeing something (…) more "real" like the one at the Beacon [art exhibition that] changed my perception [of] how things are for that moment. This [installation was] a different thing because it was using organic materials like potatoes, and it was making sound with them, and it was incorporating your body [into the experience] so it was a lot more holistic experience. The Beacon art exhibition was more [of an intellectual] experience, [calling upon] the way I perceive something. (p. 72)

Hearing the sounds made by the potatoes was such a powerful experience that it even influenced Juliette's plans for her future art making:

> I work with clay so everything is very tactile. I could incorporate sound and touch maybe. I don't know. I like the sound, but I wouldn't like to have a pre-recorded [soundtrack]. [I would prefer] to have sound made by something you would have not thought could make a sound. That makes me spark a bit. That is really interesting but I don't know. Maybe I'll hook wires to a lump of clay and figure out what it is saying inside: "free me!"[laughter] (p. 76)

For Nathalie (expert #3) hearing was also the most solicited sense: "I would definitely say sound was the most intriguing, most prominent for me" (p. 84). Asked if the sound made by the potatoes made her relate to the work of art in a different

way, Nathalie described hearing as an opening for interpretation and a motivation to find out more:

> … I saw the wires and I started to put together what the potatoes were doing and how the sound was coming about. I knew that it was related to the setup [of] the work. It made me want to explore more. (…). The sound (…) wasn't that loud inside so I thought for sure there must be some sort of hole or something that is making it loud enough for me to hear outside. So then I looked underneath the [cornice of the] roof and saw that it was kind of opened. (p. 82)

For Nathalie (expert #3) hearing experiences also included connections to past experiences, including memories of the sounds made by mosquitoes flying into a "zap trap", experimental music from the 70's and other works of art where the sound of a door opening was prominent (p. 82, 83, and 93). For Robin (expert #7), hearing the noises produced by *Pomme de parterre* jogged her memory of the sounds produced by a heart rate monitor in the hospital room while visiting her grandmother (p. 138 and 143). For Lyne (expert #1), hearing was also an incentive to understand more about how the installation worked; she welcomed the absence of light as she felt it enhanced her hearing (p. 62). For Yvon (expert #12), hearing was also the most solicited sense. Hearing the sounds produced by *Pomme de parterre* brought back memories of computer and electronic sounds; it also helped him to understand how the piece was constructed (p. 190). Al (non-expert #9) was the non-expert participant who referred most frequently to his sense of hearing

during the interview of Activity 2. For him, his sense of hearing was the most solicited amongst his senses, as it was for Juliette (expert #2), Nathalie (expert #3) and Yvon (expert #12). For Al, hearing was a key to understanding the workings of the piece and more; his hearing provided the clues necessary to produce a tangible explanation of the mechanism**.** When asked if any sensation made him appreciate or understand the work of art, he answered:

> …the sounds first of all, so you can know that the potatoes are actually producing electricity. It's very concrete; you cannot deny it when you are in there. So it's really logical that [the] potatoes [are] connected to each other and the sound. So I understand it through that. (p. 161)

For Al, the use of hearing transformed the experience from a common one to an enhanced aural experience of a work of art, which was supported by the diminished lighting:

> I was surprised that it required more hearing than anything else for me, usually art for me is (…) more about the visual. So it's pretty cool that it was something else, even if, when you get in, the first thing you notice is the potatoes and the wires everywhere in there. But after a while, you get used to it (…) and you start to hear more [and focus less on looking]. (p. 161)

In her interview, Mona (non-expert #11) revealed that her sense of hearing brought her deep into the discourse and meanings of the work of art, helping her to

understand one of its core aspects. Mona explained that the sounds awakened her to the power of the potato and its potential in the industrial world (p. 177). Also, to convey how important hearing was to her experience she explained that her interpretation of the work would have been different *without* the sound. Without the sound, with all the potatoes lined up, the installation would have appeared as sad and pessimistic as a concentration camp, with cramped, forced conditions, a "cellar of concentration"(p.185).

In sum, most participants used hearing as a means to figure out the functional aspects of the installation. There were similar results for both groups: three experts and three non-experts said that hearing was the most solicited sense, and two experts and two non-experts declared the darkened conditions of the interior of the shed useful for heightening their sense of hearing. Four of the five experts and three of the five non-experts used hearing as a motive to understand the workings of the piece. Finally, hearing brought back memories of various past personal experiences for three of the five experts, but only for one of the non-experts. A few participants reported having truly significant experiences with hearing. Juliette (expert #2) had a truly revealing hearing experience with *Pomme de parterre.* It influenced her understanding of the work of art by bringing her to another level of awareness. She even talked of understanding the work though her body instead of the experience having an intellectual dimension. For Al (non-expert #9), hearing transformed art viewing experience from a visual to an aural experience. For Mona (non-expert #11), hearing was so powerful that when she tried to imagine the work without

sound, with all the potatoes lined up, she associated it with a concentration camp. There is little doubt that hearing was an important and powerful aspect of understanding and appreciating the work of art.

Summary

The most prevailing finding is that, overall, sensory activities played a substantial role in expert and non-experts' understanding and appreciation of the installation art *Pomme de parterre.* About half the participants used the sense of touch to explore the installation. There was no discernable distinction between the touching behaviors of experts and non-experts. Similarity was found between two participants (an expert and a non-expert) with high incidences of touching: a considerable experience with installation art. Touching provided much information to the experience of participants. By using their sense of touch participants were informed about temperature and the function of the shed to conserve the potatoes. By touching the plants and the leaves participants were informed about the textures and the condition of plant growth. Manipulation revealed information about purposes of display and functionality necessity such as keeping the potatoes in place and connected to each other. The great majority of participants found meaning in the contrast of the smells to be found outside and inside the potato shed, which is one of the major themes of the artwork. Smelling occurred in consort with other senses. Smells were linked to memories of past experiences and considered as possible materials for art making. Smell was found to lead to other potential starting

points for interpretation such as the sense of taste, memory and personal experience. Taste was linked to the memory of food and to past experiences. Taste was linked to the notion of eating and the artistic potential of food and, as such, was topic of art interpretation. Hearing was an important and powerful aspect of understanding and appreciating the work of art. All participants used hearing as a means to figure out the functional aspects of the installation. For many, hearing was the most solicited sense during their experience with the installation. Some participants reported transformative experiences because of hearing. For example, experiences with art were now felt physically as well as intellectually ; experiences with art which had been only visual now contained an aural component. Hearing was so powerful that the imagined lack of it completely transformed one participant's interpretation.

In the next chapter, I will discuss how kinetic activities are related to learning through active, physical exploration. I will discuss the contribution of the senses to art appreciation and understanding and the major differences between the experts and the non-experts of this study. Finally, I discuss video elicitation as a tool for research and learning.

CHAPTER 6 DISCUSSIONS

Introduction

The discussion chapter comprises four separate sections. In the first section, I discuss how kinetic activities, orientation activities and verification activities helped participants learn through active, physical exploration of the installation. I then discuss how interaction with other visitors and the art technician as well as stopping and pausing were beneficial to the understanding and appreciation of the installation. The second section is a discussion about the unique contributions of the sense of hearing, smell, touch and taste to the appreciation of the art installation and the subsequent need for the consideration of the dimensions they bring to the aesthetic experience. There I also discuss the inseparability of the senses in the art experience of the participants. The third section is devoted to experts and non-experts, their differences and their similarities. I also address the need to include other domains of experience in the description of the skill sets of experts and non-experts first proposed in Chapter 1. The last section of the chapter looks at video elicitation and its unique contribution to art education as a tool for research and learning. When relevant, I refer to the literature and related research as a means for highlighting the similarities and dissimilarities in the points discussed.

Kinetic Activities: Learning Through Active, Physical Exploration

Orientation Activities

The participants in my study followed the preset paths included in the installation by the artists such as the earthen and wooden paths, the stairs going down to and up from the potato shed as well as the graveled interior of the potato shed. By engaging in orientation activities, the participants were almost sure to attend to most of the significant aspects of the installation. For a work of installation art such as *Pomme de parterre*, kinetic activities helped participants to pay attention to all the various components which form it. Because installation art often provides an immersive environment, it is necessary for visitors to engage physically with the work of art, to enter inside the artwork's space and surroundings and to physically navigate within it.

Most participants first circled around on the outer pathways of *Pomme de parterre* before deciding how to further engage with the installation. This orientation activity informed participants how to go on about engaging with the installation. This was a situation in which participants may not have known how to proceed because they had not seen the site previously, because the site was quite vast, and because there were no guides or sign postings to put them on the "right" trail. This orientation behavior on the part of the participants was a strategy for dealing with the unexpected and the unknown. This type of orientation activity has also been observed in museums with visitors that are not familiar with the site: "visitors are

initially disoriented; they spend the first few minutes in the museum determining what there is to see and in which direction to move. They stop, look around, and perhaps obtain a map"(Falk and Dierking, 1992, p. 58). In the case of this study, with limited choices as to how to behave and to proceed on the installation site, participants started to learn about where they were and what was to be discovered through these early exploratory activities. "The need to make sense of the environment, to find patterns and make order out of chaos, is an innate quality of all mammalian brains" (Falk and Dierking, 2000, p. 65).

Also, moving around and through the installation was a way to compensate for information that was not available otherwise, for example through the sense of sight. The sense of sight could not inform the participants on some parts of the installation since they could not see inside or through the potato shed. In this way, moving around and through the site served to get to points of interests which, in other circumstances could have been addressed by using one's sense of sight from a greater distance. Using the pathways and the layout that were part of the work of art informed participants in a way that only a kinetic displacement could. For example, the descent and entrance into the inside of the potato shed signaled that there was another level of information that could be discovered by going underground: the normal function of a potato shed is that of a root cellar that maintains the potatoes at a cool temperature. Joe (non-expert participant #4) recounts his experience of when walking down the steps informed him about the

nature of the work: "And then coming down as if it's in a basement […][you] understand what the whole concept of the work of art is"(p. 101).

Verification Activities

Verification activities such as bending down, kneeling, sitting, looking in through the roof and retracing previous steps had various purposes. They served to identify parts of the work, to scrutinize them and to make the most out of them. For example, they served to locate where sounds came from, to verify the distinction between various sounds and to optimize the reception of the sounds by finding the right spot in which to do so. Also, verification activities were used to return to a previous location to further study certain elements, and to collect missing information. In this way, participants were choosing to come back to parts of the installations in order to construct further knowledge about their experience with the work of art. Lyne, (expert #1) gives a good example of this kind of kinetic exploration:

> I start looking at the plants and I'm walking around and I start reading (…) then I reached [a potato] that said "Yukon" (…). So I went around again to look at them all. So the flowers must be different ? So I started inspecting the flowers and the leaves to see what the differences were (…). Then I decided now we'll go in, into the place (…). And I was trying to figure out which potato was making which sound (…). And then I kind of looked at each one and then I backed off and looked at the whole thing and then left (…). And

> then I walked around the garden again to check the flowers to reacquaint myself with the different blooms (Douesnard, 2010, Raw Data, p. 57).

This kind of kinetic learning using selective physical engagement, is similar to the constructivist process of information gathering which Hein has described as follows:

> Proponents of constructivism argue that learners construct knowledge as they learn; they do not simply add new facts to what is known, but constantly reorganize and create both understanding and the ability to learn as they interact with the world. (1998, p.76)

This type of selective physical engagement also resembles a post-modern view of learning, as opposed to the "linear and incremental step-by-step models", described by Hooper-Greenhill: "Learning has been found to be more like a process of bricolage, a picking up of bits and pieces to parch over the gaps in knowledge when they are exposed, rather that a steady accumulation of incremental facts in a linear way" (2007a, p. 372).

Verification activities were also used by participants to position themselves for viewing and engaging the work of art from different distances and points of view. Most participants engaged in a kind of back and forth conversation with the installation in order to view larger parts of the work or small and precise parts of the work. For example, they backed away from the walls presenting the rows of

potatoes and closed in by kneeling down to touch, listen to or look at the light jars under the bottom shelf. Finally, verification activities helped participants to overcome physical obstacles. The architecture of the shed made it possible to see and to hear part of the inside of the shed from an outside position under the eaves of the roof. Participants lowered themselves just below the roofline to look down. By engaging in these verification activities, participants were able to overcome physical obstacles created by the walls of the shed and the dead end of some paths and access more information about the installation.

Interactions with Other Visitors and the Art Technician

Interactions with other visitors and the artwork's technician[15] could not be predicted and were chance occurrences. Most non-experts initiated interactions with other visitors or the art technician multiple times and actively participated in them. These interactions turned out to be broadening and informative; the result was a deepening of the participants' understanding of the work of art. Such encounters provided opportunities to learn from others, and provided information that participants would perhaps not look for by themselves. This finding illustrates the social context of learning, which is a critical idea about learning in current educational theory; that is that learning is reliant on exchanges within a social context (Henry, 2010, p. 50). Most experts actively avoided interactions with other visitors. Experts in this study, who are familiar with traditional exhibition conditions, may have brought with them the 'silence' rule which is so present in art

[15] The work *Pomme de parterre* required frequent maintenance and therefore, a technician was assigned to conduct these regular duties.

museum contexts. They may have also brought from their training the notion that the idealized relationship sought between a viewer and the work of art is a one on one type of rapport that leaves little room for intruders. In the case of the installation *Pomme de parterre*, however, which allowed participants to change trajectories and experience chance encounters with other visitors, the non-expert participants in my study embraced and benefited from the social dimension of their experience. This suggests that experts might also benefit from interactions with other visitors at contemporary exhibitions sites such as *Pomme de parterre*.

This said, many expert participants enjoyed being by themselves. " [I liked] being free to just look at what I wanted without anybody around" (Douesnard, 2010, raw data, p. 58). And "I would have stayed longer…but for the people" (p. 213). These comments exemplify that the freedom to chose what they wanted to look at and the time allotted to do so were important elements of these expert participants' experience. Free-choice (or "informal learning") is an important dimension of art appreciation (Falk and Dierking, 2000, p. 13) as is the dimension of time (Henry, 2010, p. 16; Lachapelle, Douesnard & Keenlyside, 2009) since both favour reflection and introspection. Combining the social dimension of learning and the informal learning dimension could probably optimize the understanding and appreciation of the art installation. I discuss the notion of time in art viewing experiences in more detail in the next section.

Stopping and Pausing

Museum visitors often do not – under regular circumstances—take time to stop and carefully study a work of art. However, when the experts and non-experts in my study did stop, pause and take more time to experience the work of art, the outcome was beneficial to their understanding and appreciation of the installation *Pomme de parterre.* Being "forced" to take more time -- as was the case in my study since all participants were asked to spend at least five minutes and up to twenty minutes with the installation -- had positive effects on participants' experience. The outcomes included gaining another point of view, and finding other starting points for interpretation. For Lyne, pausing gave her the opportunity to probe deeper into the work of art:

> I paused a few times. I paused to read the words, I paused to touch the plants, the leaves, to see if there were differences. I paused to look at the flowers to see again the differences in the potato plants. And I also paused inside to see which potato was singing [sic] (p. 60).

For Nathalie (expert #3) pausing and taking time was her psychological point of entry for identifying and connecting all the different material parts and conceptual ideas of the work, :

> If I did not stop to look and listen, I would not have started to understand the work […] how it was constructed because that is what I really wanted to put together. And I realized there were also sounds happening at different times and

> the lights were connected to that. (…). So I started like to put things together more by taking the time to stop, and look, and listen (p. 85).

Lachapelle, Douesnard & Keenlyside (2009) designed and implemented a research program studying the effects of expanded viewing time on the art appreciation capacities of a large group of non-expert informants. Each participant took part in two activities. In the first research activity, informants chose an unlimited number of artworks to study and interpret; in the second activity informants were required to spend an extended period of time studying one work of art in depth. Lachapelle et al were able to conclude that: "Prolonged viewing had an overwhelmingly beneficial effect on these non-experts' art appreciation experiences" (Lachapelle et al, p. 255). Longer viewing time also resulted in an increase number of interpretative hypotheses about the chosen works of art (Lachapelle et al, p. 255). In his study in learning and art appreciation, Perkins (1994) found that certain cognitive dispositions favored art appreciation. In a similar finding to my study, Perkins found that "striving toward a richer experience of art means (…) slowing looking down" (Perkings, 1994, p. 36) and named this disposition to art appreciation "giving looking time".

Although there are similarities in the findings of both studies and my own, my study presents more specific findings about understanding and appreciating installation art through kinetic engagement. First, because taking time to stop and pause occurred during kinetic engagements at different positions around the site of the installation, participants were able to identify and connect all the different material

parts and conceptual ideas of the installation, gain another point of view into the work, and find other starting points for interpretation. Second, because taking time to stop and pause occurred while participants were engaging in various movements such as bending down, or kneeling, they gained another point of view into the work, and found other starting points for interpretation. The importance of taking time to view and explore works of art has been deemed important to museum visitors' experiences with researchers in art education and museum education now including the "dimension of time as an important aspect of learning in museums" (Henry, 2010, p. 15).

It is worth noting that participants also benefited from experiencing the work of art *over* time. Participants on their second tour through the installation made significant discoveries, namely about the heirloom names of potato cultivars painted on the floorboards. Participants who had visited the installation the previous year and then re-experienced it a second time during this study made break through discoveries that included actually entering the potato shed and acknowledging the exterior garden as part of the installation as was the case for Yvon (expert participant #12) and Mona (non-expert participant #11). These findings confirm that: "learning occurs over time and is an ongoing process" (Henry, p. 30).

The Senses

Contribution of Senses to Art Appreciation and Understanding

While I acknowledge that sight has been the privileged sense of the aesthetic experience, my research provides evidence that each other senses are complimentary because they contribute something different and unique to the experience of installation art. When participants engaged in multi-sensory activities, the senses of hearing, touch, smell and taste were all found to be valid entry points for engaging with the work of art. Just like the sense of sight, these senses were sensory gateways for the understanding and appreciation of the installation *Pomme de parterre.* Results demonstrate that the senses of touch, taste, smell and hearing can contribute considerably to an understanding of the work of art**:** "Different senses offer different benefits to the formation of knowledge" (Duncum, 2012, p. 186). In this section, I will discuss how each sense contributed to the art experience of my participants and argue for the inclusion of these new dimensions into our present-day understanding of the aesthetic experience.

Hearing

The sense of hearing contributed unique aspects to the participants' experience of *Pomme de parterre.* One of participants' first impressions (such as Samuelle, non-expert #5) was based on hearing; it was possible to hear parts of the work, such as the sounds produced by the potato battery, before actually seeing them. The speakers that amplified the sounds produced by the energy of the potatoes were out

of sight, inside the potato shed. Therefore, the participants had no idea what the shed contained since they were prevented from reading the installation's information label before visiting the installation. For example, it was the sounds emanating from the interior of the shed that guided Samuelle (non-expert #5) and motivated her to find the steps leading to the door that opened on to the inside of the shed. Once inside the shed, the majority of participants used their hearing as an incentive for figuring out the precise mechanism of the installation. Juliette (expert #2) explains: "There was a sound that was really special in there and I kept trying to find [out] which potato or which lot of potatoes was making it. That is what really got me [engaged], the sound" (M. Douesnard, Raw data, 2010, p. 69). For Al (non-expert #9), as for most participants, hearing was a key to understand the mechanisms of the installation. The sense of hearing provided evidence that the potatoes produced energy. Once inside the potato shed, many participants found their sense of hearing heightened because the interior of the shed was so dark. Indeed, aside for a few very small lights tucked away at the bottom of the lowest shelf of potatoes, there was no lighting once both doors of the shed were shut. Participants found themselves completely surrounded by the walls of potatoes with the sounds of the potato battery, of feet crunching on gravel, and, sometimes, of other visitors' commentaries bouncing off the walls. Sounds became very present. Perhaps this is in part why, for many participants, hearing was declared the most solicited sense of their whole experience with the installation. As Juliette (non-expert #2) explains: "…inside, [I] definitely paused and listened. That for me was the

main attraction" (p. 69). Nathalie (expert #3) added: "I would definitely say sound was the most intriguing, most prominent [aspect] for me" (p. 84).

Some participants reported transformative experiences because of their reliance of the sense of hearing. Hearing was so powerful that the imagined lack of it completely transformed Mona's (non-expert #11) interpretation of the work of art. She explained that hearing was so important to her experience that, imagining the installation without the sound completely changed her interpretation of the work. For her, without the sound, and with the potatoes so closely lined up, the installation appeared as gloomy as a concentration camp, with cramped, forced conditions, making it a "cellar of concentration"(p.185). Because sound is experienced as a vibration that can be felt not only in the ear but also in the body, participants talked of understanding the work *physically*. Juliette (expert #2) described how the fact that her body was surrounded by and incorporated into the installation meant that she had a different experience with the work of art. Instead of having an experience that relied mostly on an intellectual dimension, she described the experience as far more complete, an experience which included a physical dimension. For Al (non-expert #9), before this encounter with an installation, an experience with art was "mostly about the visual" (p.161). Now the use of hearing expanded Al's experience with art into an enhanced, aural experience, providing a physical space as sounds were "all around me" (p.160), " coming from everywhere"(p.161).

The sense of hearing provided another exceptional contribution: memories of previous sound experiences. A wide array of remembered sounds stemmed from sounds produced by the potato battery. Nathalie (expert #3) remembered sound produced by mosquitoes flying into a "zap trap" and experimental music from the 70s. Robin (expert #7) remembered the sounds of a heart rate monitor while visiting her grandmother in the hospital. Yvon (expert #12) had memories of electronic and computer-like noises. In an evaluation study of a natural history gallery at the Boston Museum of Science, Davidson, Heald and Hein (1999) discovered that visitors "are clearly able to synthesize information from many different sensory modalities" (p.193). The proof that information was obtained from hearing was that, although many visitors to the gallery were not able to recall written information about dioramas, they were able to repeat the audio-recorded information they heard almost verbatim. Other studies demonstrates yet another aspect of the importance of hearing, this time on visual art appreciation. During a study at the Toledo Museum of Art, Taylor (2010) led test subjects through the galleries to view art while classical piano music played simultaneously in the surroundings. The quantitative data produced by his study revealed that these subjects had a "greater number of emotions associated with the originals [paintings]…than did test subjects who observed without a musical background" (p.180). In my study, hearing contributed aural, physical, orientational, spatial, imaginative and interpretative dimensions to the art experience. Hearing also contributed many sound memories that enriched the experience of the participants.

Smell

Smell contributed to the art experience of participants as the majority of participants found meaning in the contrast of the smells between the fresh outdoor part of the installation and the musty smell inside of the potato shed; this was a major theme of the artwork. The plants, the flowers, the pine trees, grasses and water from the adjacent St-Laurence river, all gave a particular olfactory dimension to the participants' experience with the outside part of the installation. Meanwhile, the damp and moldy smell inside the shed gave a very different impression of something contained and stale. In this way, the sense of smell provided valuable information about the possible meaning(s) of the art installation, and, as such, was a valuable addition to the interpretation of the installation. As Lyne (expert #1) put it:

> You do smell the environment around. Spruce trees, pine trees, so there is a smell of nature on the outside. So it's clean and fresh outside, and inside it's more musty, contained and not much air circulating. It's kind of [the] opposite of the outside. (p. 56)

Like the sense of hearing, the sense of smell encouraged participants to remember. Participants' experiences of smells were associated to memories of similar past olfactory experiences such as being in the country and food preparation. For Joe (non-expert #4), his olfactory memories contributed a physical dimension to his experience: "It smelled a bit like [a] basement, like the cold room at my mom's place where we keep the potatoes and the wine bottles" (p. 100). Again, I refer to the

evaluation research of a natural history gallery at the Boston Museum of Science, in which Davidson, Heald and Hein (1999) discovered that visitors were able to synthesize information through the senses. In this study, consoles formed of smell boxes containing the odors of the dioramas on displays were added to the exhibition which "when turned on, fanned an aroma associated with the animal or its habitat to the visitor" (p.224). Researchers found that, although most participants could not remember written information about the dioramas, they remembered what the smells were. In this study, smell contributed an major interpretative dimension as well as powerful and varied memories to the art experience of the participants.

Taste

Taste was experienced only in situations of extreme proximity. Taste can be defined as an acutely intimate encounter since, to use this sense, participants had to put their mouths in contact with parts of the installation. The installation was not exactly catered dining; the occasion for tasting anything was limited to a few edible flowers or raw potatoes. Only two participants actively engaged their sense of taste, and few participants discussed it during their interview. In these cases, taste failed to give direct information about the work of art. For example, if the flowers they had eaten had tasted truly repulsive and repelling, participants could have deduced that those flowers were actually put in the outside gardens to keep bugs away, which is exactly what they are traditionally used for. Perhaps taste could have had a stronger and clearer impact if, for example, baked potatoes had been eaten. In such a case, participants could have experienced a feeling of energized satiety. While the sense

of taste did not shine as part of the participants' actual lived experience, it still provided a topic for speculation and interpretation for many participants, since many participants made connections between eating and energy production. For Yvon (expert #12), these notions were also linked to the artistic potential of food:

> I am amazed that the artist used a common vegetable to produce sense (…) and I am amazed how a potato can make energy, also. It's like a very simple vegetable that we eat everyday but its artistic potential is really well explored here. (p. 189).

As with hearing and smell, taste contributed to participants' aesthetic experience as taste was connected to memories of past savory experiences such as flowers in salads, potato chips, and baked potatoes. Taste contributed some sense memories as well as an interpretative dimension to enhance participants' experiences.

Touch

The sense of touch was also used in close proximity. It contributed many unique features to the experience of the participants. Robin (expert #7) touched the cool gravel with her hands and also with her feet as she took off her sandals. She reported that interacting in this way with the work of art made it possible for her to figure out the function of the shed, which is to keep the potatoes cool so as to preserve them. Samuelle (non-expert #5) and Mona (non-expert #11) manipulated the potatoes to the point that they lifted the potatoes and discovered that the

potatoes were purposefully held in place so that they could be kept aligned and connected to each other. Of that experience, Samuelle said: "I found you had to touch as well as see, to really understand it." (p. 116). In a recent empirical research about children using handling objects in the permanent exhibition *African Worlds* at Horniman Museum, south London, Golding found that:

> Touch proved a key sense to gain (…) knowledge. For example, pupils were able to feel the lightness of objects such as the big gourd water pots, which appeared so heavy to the eyes alone, and this startling correction to the illusion of the single sense of sight, provoked wonder and the desire to repeat the pleasurable experience. (Golding, 2010, p. 238).

In the case of Samuelle and Mona, touch and manipulation also explained why the potatoes were so prominently "displayed" on shelves – much like an artwork is presented in a gallery – and why this display was so visually impressive. In the case of Lyne (expert #1), touch informed her on the differences between the different leaves and flowers of potato plants. For her this was a way to identify each plant. Only the sense of touch could inform her of the actual texture of the plants as opposed to the more limited information that visual texture alone could provide. The visual texture of a leaf can help someone imagine what it might feel like but actual touching the leaf provides more information than visual appearance alone as "we ascertain data about the world by means of the body, hand, or fingers coming in contact with physical matter" (Duncum, 2012, p.185). Touching provided

participants with information related to the temperature, weight, and texture of *Pomme de parterre*.

Touch is perhaps one of the senses which has been most recognized as contributing to art experiences in art museums. Museums all over the world have produced exhibitions that combine some kind of touch activity, with many providing reproductions of work that are made available to visitors for the purposes of touching. A good example is the Louvre's "galerie tactile" (tactile gallery) where everyone is invited to touch reproductions of sculptures that are part of the museum's collection. They are created in bronze, in plaster or resin and are accompanied by texts in Braille and samples of the original materials so that blind or sighted visitors can appreciate the work of the artist primarily using their sense of touch (Louvre, 2013). Also, many museums' "education departments' use of the handling collections has long demonstrated the value of physically interacting with the 'real thing'" (Dudly, 2010, p.11).

Aesthetic Experience

Although many characteristics have been attributed over time to aesthetic experience, it is now understood that aesthetic experience contains perceptual (physical), intellectual (theoretical and historical), communicative (relating to the artist), and emotional (feelings) dimensions (Csikszentmihalyi and Robinson, 1990, pp. 27-72). Results of this study suggests that our conceptualization of aesthetic

experience could be expanded to encompass other dimensions brought on by the sensory experiences of touch, smell, taste, and hearing[16] which also help us to understand and appreciate installation art. Together these senses contributed aural, physical, orientational, spatial, imaginative and interpretative dimensions as well as information related to temperature, weight, and texture and, finally, memories to my participants' art experiences.

An expanded definition of the aesthetic experience would in fact contain the idea of a previous definitions of aesthetics: "Aesthetics owes its name to Alexander Baumgarten who derived it from the Greek *aisthanomai*, which means perception by means of the senses" (Budd, 1988, p. 59). Baumgarten (1714-62) reintroduced the term aesthetics into parlance understanding it to "designate the outer external or bodily sense (…). Thus aesthetics is the realm of the sensate" (Townsend, 1988, p. 669). Reinstating the dimensions contributed by the all senses into the definition of the realm of the aesthetic experience would reinstate the place of multi-sensory experience in Western aesthetics which:

> remain overwhelmingly visual (…). There are, it is true, a number of works by contemporary artists which engage both visual and non-visual senses, particularly in the areas of performance and installation art. Such works, however, have thus far failed to generate widespread interest in a

[16] It is understood that dimensions brought on by the sensory experiences of touch, smell, taste and hearing contain intellectual and emotional dimensions. See Falk and Dierking, 2000, p.17.

> multisensory aesthetics, either among the public or among scholars of art (…). Where then can we look for a model of aesthetics which is not dominated by sight? (Classen, 1998, p. 138).

Classen proposes the "aesthetics of the blind" as the creative solution to aesthetics of sight[17]. The aesthetic model she proposes would, as the one I propose, include touch, hearing, smell and taste (Classens, 1998, p. 159).

Installation art demands new and unique ways of experiencing beyond the scope of the visual alone. Therefore: "Approaching art (…) as a multisensory phenomenon (…) reinforces the efforts of art educators concerned with performance installation" (Duncum, 2012 p. 191). It also supports the work and of art educators concerned with providing their students with more complete art engagements (Hubard, 2007).

Inseparability of the Senses

"In reality, all the senses are intertwined, and all objects are experienced multi-sensorially"(Dudly, 2010, p. 11).

The focus in this study thus far has been on five senses considered individually. I considered the senses individually for the purpose of analysis. However, there were

[17] See Classens, The Colors of Angels: Cosmology, Gender and the Aesthetic Imagination, 1998.

many instances where participants used a sense simultaneously with another one. While I did not have specific questions in my interviews about participants' simultaneous use of multiple senses, participants nevertheless offered this information on their own initiative. Participants used different ways to refer to these experiences and the language they used to convey these experiences varied considerably among individual participants. Therefore I will discuss what I considered to be the most striking examples of participants' reliance on the simultaneous use of senses presented in the context of three important findings that emerged from the interviews.

The first finding is that the nature of installation art is multisensory and requires one to be open to such experiences. Asked if she was surprised that *Pomme de parterre* required her to use more than one sense, Juliette (expert #2) replied: "you should open yourself to any kind of sensory experience because it [installation art] can be not just visual" (p. 70). She went on to explain that her sensory experience with this installation at some time involved a multitude of senses, sometimes all of them.

The second finding was that the senses work inseparably and that this was conducive to participants' understanding the installation. Asked which sense was more solicited, Robin (expert #7) explained that it was several senses, not one separate from another that helped her to understand the work:

> I think I can't [say] that one [sense] was more important than another (…). It's hard to evaluate those senses. How my touch is stimulated, how my [sense of smell] is stimulated, my vision. I think those sensations cannot be separate. The touch, the smell and the sounds, it's only [together that they] make me understand the piece and appreciate it also. (p. 139)

In fact, senses "do not operate separately, but rather in an integrated, interdependent way" (Duncum 2012, p. 186) so that "we experience the world through employing a range of senses simultaneously, such that, it is often impossible to say when one stops and another takes over" (p. 186). Samuelle (non-expert #5) also talked about using many senses together to understand the work of art: "you had to use all of your senses to kind of understand what was going on" (p. 110). And Mona, (non-expert #11) thought that the involvement of multiple senses, such as smell and touch, made the experience of the installation more interesting (p. 177).

The third finding emerging from participants' interviews was that the immersive nature of the work elicits a multisensory experience and, consequently, this heightened participants' awareness of the physicality of their experience. Asked to explain the differences between this experience and one in a museum, Cathy (non-expert # 6) described her experience as one in which she felt as though she was physically a part of the installation not just involved visually with a painting or a sculpture.

A long time ago, Aristotle (384-322 BC) foresaw the necessity for senses to negotiate between each other, suggesting a *sensus communis* (Duncum, 2012, p.187). Today, there is a growing consensus that the senses work together. Gibson put forward the idea that senses function together as elements of an entire perceptual system (p.187). Howes highlights the notion that the senses work interdependently:

> The idea that each sense has its proper 'sphere' or 'object', so that sight is concerned with color, hearing with sound, the nose with smell, and so forth has also fallen into disrepute. The senses, in fact, frequently overlap: thus, when a base drum is struck and a foghorn sounds, we feel as much as hear the vibrations. (Howes, 1999, p.146)

While Gardner identified many individual intelligences in his Theory of Multiple Intelligences (1983), he agrees that: "intelligences always work in concert" (Gardner, 2006, p. 8). Considering participants' experiences under the paradigm that the senses work interdependently better represents the varieties, subtleties, complexities and realities of my participants' encounters with the multisensory dimensions of installation art.

Experts and Non-Experts

Differences: Suppression of the Urge to Touch

One of the characteristics of fine art museums and art galleries is that visitors are not allowed to touch the exhibits. For this reason, experts have learned that

touching is forbidden in art settings. Installation art such as *Pomme de parterre* differs from many other art forms in that it has as its focus the sentient being. In this study, all experts frequently, lengthily and actively engaged in activities intended to suppress their urges to touch parts of the artwork. All experts engaged in behaviours intended to suppress of the urge to touch for considerable periods of time, from 17% to as much as 42% of the total duration of the exploration time. Only one out of the five non-expert participants (Joe, non-expert #4) engaged in activities meant to suppress the urge to touch for any length of time.

Behaviours intended to suppress of the urge to touch included several different forms of touch inhibition strategies such as: putting hands in pockets, folding arms behind one's back, or crossing arms across the chest. Combinations and variations of these were observed. Touching was a common concern among the experts, with four out of five experts discussing the forbidden aspect of touching in the museum and in their experience with *Pomme de parterre.* They talked about this both during the interview and eliciation activities. Lyne (expert #1) believed that she might get some information about the work of art by handling the potatoes, but a sense that it was forbidden prevented her from doing so:

> I would have liked to have held the potatoes. I would have liked to touch them and hold them and see if there was any sound or vibration of something coming off them. But I felt they were kind of on a pedestal, [that] they could

> not be disturbed. It's like they were sleeping. I thought I couldn't do it. I thought that I was not supposed to touch! (p. 60)

In Activity 3, while reviewing the video of herself interacting with the work of art, it became very apparent to Lyne that she was actively refraining from touching anything: "Notice how my hands are in my back, I really don't want to touch anything!". Asked if it felt forbidden, she simply answers: "Yes" (p. 205). In the post-visit interview, Juliette (expert #2) at first said that the work of art did not provoke an urge to touch: "I didn't have to touch it, a lot of it had to do with just sight and sound. It wasn't something (…) I wanted to [do]…it did not have any tactile effect on me" (p. 69). But later in the interview she changed her mind, explaining that she did want to touch but that it was a sense that it was forbidden that prevented her from touching the potatoes: "I was trying to figure [out] why I wanted to touch things and start pulling the wires out, which probably would have gotten me thrown out of here" (p. 73). Nathalie (expert #3) explained that feeling forbidden from touching was a factor that prevented her from doing so. Robin (expert #7), concerned with being "caught in the act", also refrained from touching. I also found that the situation during which the suppression of the urge to touch took place for experts coincided with the arrival of other visitors inside the potato shed. For example, in Activity 3, Juliette observed herself suppressing her urge to touch and that a possible explanation for her behavior was: "because that is when the people started piling in" (p. 213). Again it is the element of the forbidden that stands out.

Furthermore, most experts denied having engaged in the act of touching parts of the installation, dissociated themselves from the act of touching, or diminished the importance of the activities of touching. In Activity 1, Lyne (expert #1) bends down over a potato plant and explores it with her hands. But, in the video elicitation of Activity 3, when asked if she was touching, she negates this and says she is using her sight: "I am looking at the different flowers and seeing the insides, how different [they are] one from the other"(p. 205). Yvon (expert #12), in Activity 3, admits that, for him, touch was the less solicited of all his senses. But, as documented on video tape, Yvon did go on to actively touch the work of art. He is, in fact, under estimating his experience with the sense of touch as did Lyne, (expert #1), Juliette (expert #2) and Nathalie (expert #3). Nathalie did not remember if she touched something or not. But in fact, she did.

For some experts, their professional training in museum settings might explain their steadfast refusal to touch. Juliette (expert #2) knows herself to be a tactile person with a tendency to react to new situations by touching. She disclosed that it was her extensive experience with museums that may have curbed her spontaneous physical responses to works of art. Speaking of her experiences in museums, she says: "Where you cannot touch. And there are so many, you know. You would love to run your hands on a Van Gogh painting because of the bumps. Or touch a Pollock and feel the cigarette butts and all that… But you can't. You are not allowed (p. 219). Nathalie (expert #3) had in common with Juliette (expert #2) the professional training that taught them not to touch art in any context, particularly in museums.

Nathalie explained that she was not only trained not to touch but that she also teaches her pupils not to touch when they are in a museum setting where the works of art are not interactive:

> And also, traditionally, I don't touch art works. Because that is what I do! Every day when I bring kids into the gallery, before, I have to say: " don't use your hands because there's oil [on your skin] and we want these works to [last]"…This [installation] is different than the art works in the gallery that I work at but I didn't want to touch it. I just felt that restriction of not… I just felt like I couldn't go there (p. 88)

Among my expert participants, the frequent and enduring urge to suppress touch occurred even though I explicitly expressed, in my instructions to participants, that they were allowed to touch any part of the artwork. Falk and Dierking (1992) suggest that museums are "behaviour settings" in which visitors expect to find priceless object closeted behind glass cages and guarded. So that when visitors are presented an occasion to touch in a context where they are not supposed to touch, they are very reticent to do so. They found that visitors: " were confused by a hands-on exhibit discovered mid-way through a museum full of hands-off exhibits. Despite signs urging them to touch, visitors were uncomfortable doing so, having been conditioned to expect objects in the museum to be untouchable" (p. 66).

Differences: Compensatory Verification Activities

It is likely that, to compensate for forbidden touching activities, experts engaged in substitute kinetic activities (please refer to Table 4 and 5). In the expert group, verification behaviours consisting of bending down and retracing steps were much more varied and much more frequent than for the non-experts. Such behaviours included: bending down, kneeling, sitting, jumping, and retracing steps. There was also a striking difference between the two groups as all expert participants retraced their steps at some point in their walk around the work of art while few non-experts did so. By engaging in these kinetic activities, experts compensated not being able to touch with other strategies intended to get closer to parts of the installation or to view them up close.

Differences: Textual Clues

The study of the importance of text-based clues in art interpretation was not originally intended to be part of this research but unforeseen results require that I briefly address the use of sight to read and interpret texts at this particular junction. Experts were by far more tuned into spotting, reading and deciphering the textual clues engraved into the outside floorboards of this installation. They also got more information out of these observations. Because of this, expert participants were able to connect various components of the work, make conceptual connections with ideas embedded in the work of art and formulate interpretations about the installation. The name of each variety of potato engraved in the floorboards corresponded to the species of potato plants included in the garden beds that

formed the outdoor component of the installation. Since participants could not know at this early point in time that a battery of a 1,000 potatoes awaited discovery in the interior of the installation's shed, the names of the potato species served to foreshadow what awaited inside. In this way, the engraved text formed a connection between the outside and the inside of the work. The text also provided a kind of key for interpreting the meaning of the work.

Four out of five experts expressed having experienced a sense of discovery from reading these visual clues. This brought a dimension of satisfaction and of victory to the participants' learning as they were able to put the pieces of the "puzzle" together. Juliette explains:

> I was walking around, then, suddenly, it wasn't the plants themselves, it was the names, I said: "Ha! Ha! Potatoes", and then I thought: "OK, that reminds me of the building itself because it's in the ground it reminded me of a potato storage [shed]. So I though: "OK". I started to make connections there. (p.71)

By spotting, reading and deciphering the textual clues, participants made significant discoveries about the meaning of the work. Expert participants revealed that these clues were significant for forming their interpretations of the installation. From the following excerpt we can see just how skilled Lyne (expert#1) was at making conceptual connections between the written text and the other concepts included in the work:

> So I'm reading all these different titles…at first I thought it might just be the wood [that] had that title on it [as if] it came with the wood or something. Then I kept seeing it reoccurring with different words, then I started to think of what is the point of all these words. They look like they're countries but I'm not sure. And then I reached one that said Yukon Gold and I said: "that is the name of a potato." And so I said: "OK, they must be the names of different types of potatoes". So I went around again to look at them all. And, I also noticed that for different potatoes there must be different plants. So the flowers must be different so I started inspecting the flowers and the leaves to see what the differences were. So I recognized that. (p. 57)

As part of their professional preparation, all of the expert participants have received training that emphasizes the role of reading texts in formulating interpretations and making conceptual connections with ideas embedded in works of art. This attention to textual information seems like a valid and productive strategy to adopt in order to better understand this work of installation art. Non-experts could well benefit from such a strategy. By using the experts' approach to looking for and interpreting textual clues, non-experts could make more connections to the various parts of the work while viewing the outside of the installation.

Similarities

Education researchers now agree that prior knowledge and past experience play an important role in our learning (Falk and Dierking, 1992, 2000; Hooper-Greenhill, 1994, 1999, 2004, 2007b; Hein, 1998; Henry, 2010; Rochelle, 2012). This essential reality of learning brings together participants of this study; all of them showed at some point or another the influence of some past experience or prior knowledge on their present experience with the work of installation art *Pomme de parterre*. At the heart of this idea is the notion of constructivism: "the belief that knowledge and understanding are constructed by individuals based on their existing knowledge and previous experience, is an important theoretical approach to learning in contemporary education" (Henry, 2010, p. 50). Hein makes the case for constructivism in the context of the museum: "Learning can only occur when visitors can connect to what they already know, can make an association between what they bring to an exhibition and what is presented" (Hein, 1998, p. 152). But what concerns the interests of this present research more specifically are the sensory and kinetic dimensions of prior experience. Therefore, here, I take a look at some of the most striking examples of what experts and non-experts had in common in terms of the roles played by prior kinetic and sensory experiences in their present encounter with the installation work.

Similarities: Prior Kinetic Experiences

Within the outdoor area of the installation, the majority of the participants proceeded to walk solely on the wooden paths designed by the artists.

Nothing prevented the participants from going off the established pathways and only a non-expert and an expert, Mona (non-expert #11) and Yvon (expert #12), strayed from the boardwalks. Also, they were the only two participants to comment on the restrictive nature of the pathways during their interviews. Mona (non-expert #11) said that she felt directed, using the term "strict" to describe the trajectories imposed by the pathways (p. 179). Yvon (expert #12) confided in the interview that he felt surprised that the artists controlled his way of moving about the space and that: "It's not really a free way… we don't have that much latitude as a spectator in this piece. There is one way to see it: around, [then] in"(p. 193). As it turns out, both of these participants have extensive previous experiences with works of installation art, such as works at the international exhibition at l'Ile Saint-Barnabe in Rimouski (Mona) and installations in the town of in Riviere-du–Loup (Yvon). Also, significantly, both participants have previously visited this exact work of art the previous year as they both live close to the Reford Gardens [18]. The fact that they both are willing to negotiate more territory and feel more autonomous about their physical engagement with *Pomme de parterre* seems directly related to their past experience with installation art.

Because all the participants of this study were able to move about freely throughout the site and because the art technician was often present, there were chance

[18] Although I knew that both of these participants lived relatively close to the Reford Gardens (Trois-Pistoles and Rimouski respectively) they disclosed only in the post-visit interview that they had both visited the work in the previous year.

encounters between the two. Only two participants, Mona (non-expert#11) and Al (non-expert #9) settled inside the shed for an extended period of time to listen to the art technician explain to other visitors how the potato battery functioned as he worked on its maintenance. Mona discussed in the interview of Activity 2 and in the elicitation of Activity 3 her interest for what visitors were learning from this encounter and concluded that the questions visitors posed to the technician were relevant for their learning. Al (non-expert #9), also reviewing this situation in Activity 3, concluded that an art technician can also double as a guide. It is highly possible that Mona's concern for public services as a member of a board of administration at a regional museum in the province of Quebec and Al's job as a guard at a museum of Fine Arts in the province of Quebec had an influence on their interest for the kind of learning that the visitors to *Pomme de parterre* experienced when talking to the art technician.

Similarities: Prior Sensory Experiences

Many prior sensory experiences were already discussed from a different point of view: mainly, that of the contribution of the senses of hearing, taste, smell and touch to participants' aesthetic experience. Therefore, here, I will highlight occurrences of prior sensory experiences to emphasize their intrinsic presence in participants' experiences with *Pomme de parterre* and emphasize the similar roles played by expert and non-experts' prior sensory experience. Prior sensory experiences were part of non-expert and expert participants' encounter with the installation in the context of touch; one of only two experts to touch the installation had extensive

background with installation art and one of only two non-expert participants to extensively touch the installation also had extensive previous experience with installation art. Previous experiences of an olfactory nature manifested themselves for experts as well as for the non-experts in the form of memories of physical sites which contained food as well as in memories of food itself. The only two participants who ate flowers, Yvon (expert #12) and Joe (non-expert #4), both had previous experiences eating these kinds of flowers in salads. Previous experiences of an aural nature manifested themselves for both experts and non-experts in the form of memories of music, and memories of a variety of noises, from mosquito "zap traps" to whale vocalizations.

There are though, differences in the similarities between expert and non-experts' sensory and kinetic prior experiences. Most notably, the fact that experts made frequent and numerous references to other art encounters containing sensory and kinetic aspects. Juliette (expert #2) compared her physical movements which consisted in approaching the artwork, leaving the artwork and coming back to it again, as a "come- and-go" approach to examine the work related to her previous experience with a "huge, monolithic" installation piece (p.215). For her part, Nathalie (expert #3) discussed an aural experience during a recent visit to the Pompidou centre for contemporary art in Paris. The sounds she heard the potatoes producing reminded her of strange sounds "with a pitch that was very disturbing" previously encountered in a work of art at the Pompidou centre (p. 83).

Previous sensory and kinetic encounters with works of arts can be an important part of participants' appreciation and understanding of installation art. Previous sensory and kinetic experiences related to daily life as well as sensory and kinetic experiences that occur while looking at works of art can be building blocks to learning, especially since "most people deal with information, particularly new information, in a concrete, 'nuts and bolts' way" (Falk and Dierking, 1992, p. 78). More precisely: "direct and purposeful experiences invoke all the senses -- sight, sound, taste and smell, and movement and touch--in real time (…). When feasible, direct experience is the most effective way to learn" (Baines, 2008, p.19).

Rethinking the Skills for the Experience of Installation Art

Results of this study show that a list of requirements for the understanding and appreciation of installation art may be added to the skills of experts and non-experts first proposed in the methods chapter. Csikszentimihaly and Robinson (1990) reported that expert art perceivers used perceptual, emotional, intellectual, and communicative skills to respond to art. In turn, Lachapelle (2007) proposed that non-experts were similar to experts in using both emotional and cognitive responses in order to understand and appreciate works of art, but posited that non-experts rely more on "everyday, experience-based knowledge" and on tacit

knowledge[19] criteria for evaluating works of art, whereas experts rely more on discipline-based knowledge (p.124). In addition to the skills proposed by Csikszentimihaly and Robinson (1990) and Lachapelle (2007) for museum visitors, the results of this study show that additional requirements should be considered. In defining the skills required by both experts and non-experts for the appreciation and understanding of installation art, the domains of sensory and kinetic experiences, prior knowledge and previous experience including those of a sensory and kinetic nature, and learning that is selective, cumulative, requiring time and occurring over time, should all be considered as essential skill traits for successful installation art appreciation.

However, my research findings show that there are actually *few differences* between the experts and non-expert participants in my study. My research findings suggest that our current definitions of expert and non-expert visitors may not be accurate. My research findings suggest that both experts and non-experts may have various levels of expertise and skills as far as art appreciation is concerned; and that making a distinction between experts and non-experts (on the basis of expertise in art appreciation skills) may no longer be useful. There may be a variety of possible reasons to explain why the findings of my research concerning expert and non-experts visitors are not as clearly demarcated as the museum literature would suggest. One explanation that comes to mind is related to the selection of participants. It is possible that different researchers may have inadvertently

[19] Tacit is defined as: "understood or implied without being stated" (Tacit, 2004,).

introduced a bias in their studies when selecting their participants: however, this is very difficult to prove. Secondly, other researchers – as far as I know - did not investigate specifically the role of the senses combined with that of physical engagement with installation art. On the other hand other studies did focus on similarities and not only differences, just like my study, and have also found similarities between expert and non-expert visitors, for example in the use of emotional and cognitive mental operations (Lachapelle, 2007, p.124). Another point is that some of the museum research cited was completed some twenty years ago (for example, that of Csikszentimihaly and Robinson, which dates from 1990) and that during this time museum visitors may have changed and developed their skills. Today, museums go to great lengths to publicize their exhibitions. They include exotic art as well as popular culture in their programming and, perhaps, this is how they attract more visitors. Also, "the idea that museums simply display works of art only for those who already know a great deal about art is no longer a viable concept in today's political and cultural climate", as " museums work to make exhibitions meaningful to a growing segment of the general public" (Henry, 2010, p.28). Finally, the participants of my study may have behaved differently in an outdoor gardens festival setting than they would have in a museum context.

Video Elicitation: A Tool for Research and Learning

Introduction

In Activity 3, participants reviewed the video recording of their interaction with the work of art in Activity 1. This use of video elicitation as a research procedure deserves to be discussed as a possible contribution to the field of art education: it not only produced useful research data but also seemed to stimulate participants' self-reflective learning. In this part of this chapter, I will first discuss the goals of the research procedures, then briefly describe the video elicitation process and the strengths of its features. I will then explain how video elicitation is useful for research and how it helped the participants in three learning areas. I will discuss the ways in which the procedures enabled participants to: 1) engage in explanations; 2) expand on previous interpretations; 3) construct new realizations about their experience. When possible, I will compare the video-based procedures in Activity 3 to related research methods, highlighting the similarities and differences between various research approaches.

Goals

For Activity 3, the videotaped records of participants' initial walkabouts in and around the installation *Pomme de parterre* were transferred to a desktop computer using video editing software. The videotaped records were then played back on the computer's monitor in order that participants might comment on their respective experiences while exploring the installation. To ensure the accuracy of the data

collected in Activity 3, I needed to record the information provided by the participants in such a way as to preserve and document the precise relationship between the participant's comments during Activity 3 and the related segment in the video recording on which the participant was commenting. To do this, I resorted once again to the use of video as a method to record my data. I recorded Activity 3 by framing the video image in such a way that the recording captured both the participants and his or her comments and the video recording being played back on the computer monitor. I could therefore see, in my recording of Activity 3, exactly what the participants were commenting about[20]. The procedure also reduced any potential misunderstanding about the participants' comments (please refer to Figure 8 on the next page). In a similar study on use of video and art appreciation, research participants made their own videos "in order to document their own art viewing experiences" (Lachapelle, 1999, p. 243). By using video in this way, Lachapelle found that "Informants spontaneously provide close-ups of those parts of the work to which they refer in their verbal comments" and that "this use of image to accompany verbal commentary greatly reduces the possibility that the researcher will misinterpret an informant's statements about the work of art" (Lachapelle, 1999, p. 243). In Activity 3, participants were asked to comment principally on activities or events which they had not yet talked about;
they were also asked to elaborate on any topics resulting from the exploration of the installation in Activity 1 or the interview in Activity 2. The decision to include

[20] Please refer to Figure 8 for a still picture of the video camera recording angle giving a view on participant and computer monitor where the videotape of activity 1 is playing and key console where participant can activate or stop the imovie.

Figure 8: Still Frame of the Video Elicitation Activity

Activity 3 in the research procedures served to gather additional information from the participants and was informed by two objectives. The first was to allow participants to clarify any ambiguities in the video recording by giving them a chance to explain their behaviour as they viewed themselves in the first recording made while they explored the work of art. The second was to allow me, the researcher, to question the participants in order to seek additional information about any behavior that might be difficult to accurately interpret using only Activity 1 and 2 video recordings as sources of data.

Strengths of Video Elicitation

Certain features of the video elicitation procedure contributed to make this review activity one in which the participants' experiences were at the centre of the activity. These features made it possible to gather rich and self-reflective data related to sensory and kinetic behaviours. The first of these features was that participants were given control of the video playback, allowing them to start and stop the playback as they wished in order to review their activity at will and comment as often or as long as they wanted. My role as the researcher consisted in prompting the participant in order to elicit information.

The second strength of the video elicitation procedure is that it permits a review of previous activities from a point of view that is close to the point of view in the original activity; the perspective in the visual framing of the recording of Activity 1 was close to the participants' own point of view. This means that, in the review

activity, participants can see and hear how they behaved with their senses (what they heard, touched, tasted, saw, smelled) and their body (how they moved, stopped, knelled, came back on their steps). In a related study, *The Mindcam Methodology; perceiving through the native's eye*, Starr and Kanren (2007) also found that filming from a similar point of view most useful: "Because the camera is mounted on the consumer facing outwards, it objectively records visual, auditory, spatial and temporal information" recording what informants "see, what they hear, what they say, where they move, how long they spend in each area of the premises, what they touch…" offering "unique insights into selective perception and memory processes" (p.172).

The third strength of the video elicitation procedure is that participants could review real-time video footage. The real–time video recordings provided by a single continuous take made it possible for participants to identify and determine their own time-line regarding a variety of experiences and memory events. It also allowed participants to remember missing elements of their experience and put them back in this time-line.

The fourth strength of the video elicitation procedure is its high audio and visual replay quality. The original recording was done using the Sony HDV handicam with a resolution of 6,1 mega pixels. The replay was done using the Apple, Imac desktop computer with a 20-inch monitor, which provided both an enhanced audio and visual replay experience and helped participants notice new material about their

experience such as new audio realizations, which they had not been aware of during the original exploration of the work of art. Finally, recording both the participant and the video monitor in the same frame is useful for research transcripts and analysis. The researcher can conserve and keep a record of the precise relationship between the participant's comments and the related segment in the video that the participant is commenting on.

Articulations and Learning Areas

Explanations

All participants took advantage of the review and recall activities during Activity 3 to talk about their art learning strategies and, sometimes, the thought processes involved in them**.** Juliette (expert #2) commented that she needed to access more information about the scientific aspect of the work of art (p. 217). She also explained, at length, how, as an art professional, she was trained not to touch works of art despite having a natural predisposition to do so. She also stated that: "Usually, in museums, with a painting, you attend to the painting and you move on to the next … But when [you are dealing with] sculptural pieces or something like this, you have to be able to get away and come back because a second viewing [is essential]" (Douesnard, 2010, Raw Data, p. 215). Samuelle (non-expert #5) explained that because of her curious nature, she looked carefully for anything she had missed: "When I was inside, I did not realize that there was another door (…) I'm like curious – what is this?" (p. 246). In similar findings, participants' review of their own *Informant-Made Videos* "appears to promote informants' self-reflective awareness of

their own art viewing process" (Lachapelle, 1999, p. 243). Finally, participants used explanations to recall pivotal moments when ideas formed. Yvon (expert #12) pinpointed such a moment: "This is where I began to see that there were different types of potato plants, [even] before I saw the names [of the plants written on the floor boards]"(Douesnard, 2010, Raw Data, p. 284).

In the following excerpt, Robin (expert #7) sums up how the video elicitation procedures were useful in allowing her to explain and enhance her experience :

> I really feel like I lived, like I experienced something else now (…) for me it's a second experience to my experience (…). It's a good tool when you want to explain your experience. It's very hard just to tell it like that but when you have the time and your image (…) you can describe it very well (p. 267).

Expansions of Previous Interpretations

During the video elicitation activity, all participants expanded on previous ideas about the work of art. More specifically they elaborated on three main topics: 1)the fact that their behaviours to suppress touch were unconscious; 2) the reasons, contexts, and intentions behind kinetic behaviours; and 3) the fact that they could recall the exact points in time when they heard particular sounds and when they shifted their focus from the sense of seeing to the sense of hearing.

By seeing themselves once again in the context of the installation, participants had the opportunity to expand on a previous idea: how unconscious their repression of touch had been. Experts in particular took advantage of the review afforded by the video elicitation to do so. For example, Lyne (expert #1) expanded four times on how "surprising" her touching avoidance behaviour was to her. Participants expanded on previous ideas about their kinetic behaviours such as moving within the installation. When doing so, the focus of these elaborations was often about the reasons behind the changes in certain behaviours. For example Lyne (expert #1) explained that she usually did not walk slowly (p. 206). Participants also discussed the context and motivations for their kinetic behaviours. For example, Juliette (expert #2) explained how going in and out of the shelter was beneficial for collecting her thoughts when many other visitors crowded the interior of the shed (p. 214) and Joe (non-expert #4) stated that going around the perimeter of the site was a way to get a better understanding of the whole installation (p. 237). In her research into reflective teaching practice and educational technology, Sewall (2007) found that *Video Elicited Reflection* (VER) provided "more opportunities for novice teachers to better articulate the reasons and beliefs behind their teaching actions" and that "VER *by its very nature* offers an approach more conducive toward this end" (p.134).

Participants also discussed the importance of sound in relation to precise moments in their exploration of the installation. For example, Nathalie (expert #3) identified the moment when she heard the sound of an adjoining artwork. It seems that reviewing their experience in real time helped the participants establish a sequence

of events. While expanding on previous ideas, participants confirmed that at certain points in time their focus of attention changed from focusing on visual aspects of the work of art to focusing on sound. Joe (non-expert #4) explains: "You are so stimulated with the visuals, and all the light and the green…probably the stimulation outside did not allow me to focus on the sounds as much " (p .240). Here, the review in real time, and the quality of sound during playback helped participants have a more complete sensory experience by allowing the focus of their attention to shift from the sense of sight to the sense of hearing.

New Realizations

During the video elicitation, participants produced new realizations; that is to say, they developed completely new ideas about many aspects of their experience with the installation *Pomme de parterre*. This category of responses demonstrates particularly well that the video elicitation procedures for Activity 3 allowed participants a new take on their experience, one that they had not previously been aware of. All participants came up with numerous new realizations. The most common new realization was related to observations about sounds that participants had not initially noticed. For example, during this review, participants became aware of the buzzing sounds produced by the artwork as perceived from outside of the shed. There were new sounds, sounds misinterpreted for other sounds, new interpretations for certain other sounds and louder sounds which now completed the auditory landscape of new realizations described by participants upon reviewing the videos. Features of Activity 3, such as the computer's high quality

sound playback, provided a much-enhanced audio sensory experience that is so important for an installation work with significant sound features. Participants were able to learn more about this feature of the work of art, and some were even able to come up with a new interpretation for the work of art. Mona (non-expert #11) explains:

> Its like being in a medical world, I find. You know, like someone in intensive care (…). Now, I realize that it's the same sound that we hear. Because now, it's on the videotape, I find we can realize even more how it is, the intensity (p. 280).

Here, the enhanced sound reproduction provided by the computer speakers yield an effect comparable to what a microscope does for sight: it affords an enhanced perception of information one might not normally perceive. For the participants, reviewing their videotaped experience brought into focus a sense (in this case hearing) that might have been neglected or put aside while other senses and activities were engaged in while exploring the installation.

Other kinds of new realizations occurred during the video elicitation activity. These concerned patterns of trajectories, sensory and kinetic behaviours, awareness of time, and new visual observations. An example about a new realization concerning a pattern of trajectory is when participants realized that they always moved through the work starting from the left. Not only did participants identify behaviours which

they had not previously been aware of, but, again, participants were also able to articulate a variety of reasons and intentions for these behaviours. For Nathalie (expert #3), the behaviour of walking rapidly outside of the limits of the installation revealed to her a pattern of trying to appraise as many works of art in as little time as possible (p. 230). This type of new realizations was made possible, in part, by the particular point of view of the video, in which the videographer, my research assistant, was constantly following from a moderate distance behind the participant. By understanding the reasons motivating such behaviours, participants can chose to either continue to engage in these behaviours or change them in future encounters with works of art. .

The review afforded by the video elicitation activity also made some participants aware of their use of time. Juliette (expert # 2) and Nathalie (expert #3) both thought they had spent more time inside the shed during a second visit, when in fact they had spent far less time[21]. Because the review of the videotape occurs in real time -- that is, the video is filmed in one continuous unedited shot -- it is a good tool to help participants understand that, in fact, they spent less time than they think visiting a work of art. This information is particularly relevant, being that it is congruent with other results of this and several other studies related to the fact that

[21] In an informal discussion, Juliette confided that she thought this phenomenon was possible because she already knew what was inside; she formulated the idea that she was catching up to previous available knowledge and that this is why it actually took less time to visit a second time. This is even more relevant to the study now that results have shown the importance of previous experience and of time spent with a work of art.

time is an important factor in art appreciation. Again, these realizations mean that participants can now make conscious choices as to how they approach a work of art.

The video elicitation activities also allowed participants to formulate new visual observations. For Yvon (expert # 12) the shed looked like a bunker this time around. For Robin (expert #7) there were more potatoes inside the installation than she had remembered. This might be because she was focussing on something else like the sounds since she previously mentioned being surprised by the sound of gravel upon entering the shed. The review aspect of the video elicitation activity is especially well suited to examine participants' own perceptions about their use of various senses. Participants were sometimes more immersed into one particular sensory experience during their initial encounter with the installation. In the review activity, they now had the opportunity to focus on another. To Cathy (non-expert #6) this time around, the inside of the installation looked more like a display: "When you see it again… now you realize they [potatoes] were on shelves. It's more like on a display. Like a piece of art. You put it on display" (p. 252). This last example is particularly illuminating: for this participant, the video review afforded an opportunity to create a connection between her previous and newly expanded definitions of what constitutes a work of art. Previously, in Activity 2, Cathy had difficulties articulating whether or not *Pomme de parterre* constituted a work of art as she could not, at that moment, determine what attributes could define a work of art. The above quote suggests that she was able to reach an understanding about

this during the review activity and she provides evidence of her thinking process for doing so in her comments in Activity 3.

In sum, the elicitation procedures of Activity 3 helped to achieve two main goals: to clarify any ambiguities in the video recording by giving participants the opportunity to explain their behaviours and by providing me with an opportunity to seek additional information about the data documented in the video recording of Activity 1. Certain features of the video elicitation made Activity 3 a particularly potent research tool. These included: 1) participant-controlled video playback; 2) a perspective in the framing of the recording of Activity 1 that was close to the participants' own point of view; 3) a real-time recording of all data; 4) user friendly high quality playback of video recordings. Participants took full advantage of the opportunity offered in Activity 3 to explain their behaviour during Activity 1. These explanations tended to focus on: 1) learning strategies and patterns; 2) reasons for certain behaviours; 3) thought processes. All participants expanded on previous ideas in three main categories: sound, touch and kinetic behaviours. Review activities enabled participants to become aware of their unconscious behaviours: for example, the unconscious suppression of touch**.** The real time video recordings provided by a single uninterrupted take made it possible for participants to identify and establish their own time-line regarding certain sounds and memory events. The focus of participants' expansions of previous ideas focussed on the reasons behind the changes in their behaviours, thus providing context and motivation for these changes. Finally, the video elicitation procedure allowed all participants to generate

new realizations about the work of art with the most common being about the use of sound in the installation. They also included new visual observations which enabled new interpretations of the work of art. Again, participants were able to articulate a variety of reasons and intentions behind their many kinetic and sensorial behaviours. This use of video elicitation as a research procedure made it possible to gather data related to sensory and kinetic behaviours and to stimulate participants' self-reflective learning.

Summary

Kinetic Engagement

Regarding the kinetic engagements of orientation and verification activities, expert and non-expert participants behaved similarly except that experts took greater advantage of verification activities. Concerning interactions with other visitors, experts and non-experts behaved differently: experts avoided them while non-experts actually instigated them. As regards taking time to pause and the amount of pausing over time, experts and non-experts were similar. By engaging in orientation activities the participants were able to attend to many of the important and numerous aspects of the installation. Because of *Pomme de parterre's* immersive nature, orientation activities were necessary to physically engage and navigate the work. The orientation activity of circling around the whole installation site before attending to some details was a brilliant strategy for participants to orient themselves in an unknown environment. Also, moving around and through the

installation were orientation activities which compensated for what other senses - such as sight - could not provide.

Verification activities of bending down, kneeling, sitting, looking in through the roof, and retracing previous steps were used to identify, scrutinize, and optimize participants' experience. Verification activities were also used to choose what to study and to construct further knowledge about the installation, as well as to overcome physical obstacles, sometimes using a back and forth physical conversation with the installation. Verification activities exemplify both the importance of free-choice learning and the time needed for introspection.

While experts avoided interactions with other visitors, non-experts initiated and actively participated in such interactions and learned from them, a behaviour illustrative of the social context of learning. In my study, experts as well as non-experts reported that they did not usually stop and pause to look carefully at a work of art. Being forced to do so in my study resulted in discoveries on the part of participants, which were particularly beneficial to their understanding of installation art such as connecting all the different material parts and conceptual ideas of the work. Prolonged viewing and viewing over extended periods of time are significant and important aspects of appreciation and understanding for installation art.

The Senses

In this regard, the experts and non-experts were very similar as use of the senses of hearing, taste, smell and touch added substance to the experiences of individuals from both groups of participants. The senses of hearing, smell, touch and taste complimented the sense of sight and contributed something different and particular to the expert and non-expert participants' experiences with the installation. The new dimensions provided by these senses should be included as part of our definition of aesthetic experience. An extended definition of the aesthetic experience would include the idea of an earlier definitions of aesthetics described as " perception by means of the senses" (Budd, 1988, p. 59) and restore the position of multi-sensory experience in Western aesthetics. Together, the senses of hearing, smell, taste and touch contributed aural, physical, orientational, spatial, imaginative and interpretative dimensions as well as information about the heat, weight, and texture of the work of art. The senses of hearing, smell and taste stimulated participants' previous memories. In this way they contributed the special features of numerous and varied memories which substantiated participants' expert and non-expert experiences. The senses were considered individually by the researcher for the purpose of data analysis. However, participants provided many examples of the inseparability of the senses with three main findings emerging from their experience: 1) experiencing the installation required the use of multiple senses; 2) the fact that senses work interdependently is helpful in understanding the installation; 3) senses working in consort heightened participants' awareness of the physicality of their experience.

Experts and Non-experts

The experts and non-experts were different in regard to the use of touch and verification activities. Experts and non-experts were similar in their use of prior knowledge and past experience, within which, however, there were minor dissimilarities. All the expert participants of this study repeatedly and extensively engaged in activities intended to suppress their urges to touch parts of the artwork. Only one non-expert suppressed the urge to touch for any length of time. For the expert participants, touching was understood to be prohibited. For some experts, their professional training in museum settings might explain the persistent refusal to touch any part of the installation despite being told that they could touch. It is also likely that expert participants engaged in certain verification activities to compensate for touching: experts engaged frequently and in a variety of ways in verification behaviours such as bending down and retracing their steps while exploring the installation. The non-expert participants engaged in these types of activities a lot less frequently than the expert participants. Prior knowledge and past experience play an important role in learning. All of the participants of the study had this in common. Regarding kinetic activities, the two participants who explored beyond the limits imposed by the pathways, one expert and one non-expert, shared a common past of extended experience with works of installation art and of a previous visit the year before to *Pomme de parterre*. Prior sensory experiences influenced non-expert and expert participants' encounters with the installation as regards touch, smell, taste and hearing. However, there was one notable difference between expert and non-experts regarding their sensory and kinetic prior

experiences: experts made frequent and numerous references to other art encounters which comprised similar sensory and kinetic experiences. Because direct experience involving the senses and movement can be an efficient way of learning (Baines, 2008) all previous sensory and kinetic experiences can also be stepping stones to learning. Results of the study make it necessary to consider other skills and domains of experience as components of the skills set of expert and non-expert viewers first proposed in the methods chapter. Adding the following domains of experience and conditions for learning would optimize our theoretical understanding of museum visitors' experiences with installation art: the domains of sensory and kinetic experiences, prior knowledge and previous experience including those of a sensory and kinetic nature, and learning that is selective, cumulative, requiring time and occurring over time, should all be considered as essential skill traits for successful installation art appreciation.

In the next chapter, I will answer the research questions initially posed in Chapter 1 and discuss the implications of this study for use in diverse art educational settings. Finally, I will offer recommendations for future research in art education related to my thesis topic.

CHAPTER 7 CONCLUSIONS

Introduction

In this chapter, I will first summarize the findings of this study by reviewing the two research questions presented in the introduction chapter. During the course of this study, other significant findings were also identified. These are also discussed in this chapter: these include the role of participants' previous experiences, and the role of pausing and stopping in participants' experiences. I will also briefly review the principal findings of the video elicitation method because of its possible contribution as a new tool for research and learning. In the light of the research findings, I will make recommendations for art and museum education. Finally, I will make recommendations for future research.

I will first review the results of this study in view of the research questions presented and discussed in Chapter 1. This research project had two main objectives. The first one was to find out what roles the senses of taste, smell, touch and hearing as well as physical engagement play in the participants' appreciation or understanding of installation art. The second was to compare the experiences of the expert and non-expert participants in order to identify possible ways by which adults learn using the senses of smell, taste, hearing, and touch, as well as physical engagement and other kinetic activities. To collect data for studying these questions, participants were asked to take part in three activities. The first activity consisted of

participants' exploration of the installation *Pomme de parterre* for a minimum of 5 minutes and a maximum of twenty minutes. Activity 1 was videotaped by an assistant who followed the participants throughout their exploration from a distance of approximately twelve feet. The second activity consisted of a semi-structured interview with the participants after they had completed Activity 1; it focused on their experience. Activity 3 consisted of a video recall procedure in which participants viewed and commented on the video documentation of their participation in Activity 1. The results of this study were based on the analysis of Activity 1 and on the comments and explanations provided by the participants during the interviews and video recall activities.

Similarities in the Experiences of the Participants

The first question addressed by this dissertation was: "In addition to the sense of sight, what role do the senses of touch, hearing, smell and taste play in expert and non-experts' experience in relation to the appreciation and understanding of outdoor installation art?"

Senses of Taste, Smell, Touch and Hearing

To find out what roles all the senses played in participants' appreciation and understanding of installation art, I will first look at the similarities in the experiences of the expert and non-expert participants. The findings of this study demonstrate that the senses of hearing, touch, smell and taste played important

roles in both the expert and non-expert's appreciation and understanding of the installation work *Pomme de parterre*. Each above-mentioned sense contributed something different and unique to the experience with installation art in the case of both the expert and non-expert participants. Many participants, both experts and non-experts alike, declared that their sense of hearing played a significant role in their experiences with this installation. Hearing was a motivation and a guide for exploring the exterior part of the site as well as the inside of the potato shed; participants were compelled to try to find out where the sounds produced by the potato battery and distributed by the speakers came from. The main reason for this was that when participants were located in the outside part of the installation, they could not see the speakers that amplified the sounds produced by the potato battery located inside the potato shed. In the dimly lit interior of the shed, the sounds came from different speakers in different locations and participants had to move from one to the other to find out what sounds came out of which speakers. Also, because the speakers were connected by wiring to the potatoes, their sense of hearing served to provide tangible proof of the energy produced by the potatoes. Since there was almost no light inside the shed and because the participants were surrounded by its wall, the mixed sounds of potatoes and of feet on gravel reverberated, thus making hearing even more important in this experience. Some participants described transformative experiences whose causes were attributed to the sense of hearing; these experiences developed participants' awareness; they altered the participants' interpretations. A particularly significant experience occurred when Mona (non-expert #11) imagined the installation without the ambient sounds; this changed her

interpretation of the work from installation art work in a garden festival to the experience of a "cellar of concentration", a reference to World War II concentration camps (Douesnard, Raw data, p. 185). Two other transformative experiences occurred also because of the significance of hearing in the experience of this installation. One happened to Juliette (expert #2) when she found herself immersed inside the potato shed. She explained that with her body enclosed by the walls of the shed, she had a new kind of experience with a work of art; rather than having a cerebral experience, she has an experience that was more physical and more comprehensive. For her, a previous experience with another work of art "was more through my head experience" (p. 72). This time for Juliette it was "a different thing because it [the installation] was using organic materials like potatoes and it was making sounds with them and it was incorporating your body so it was a lot [of a] more holistic experience" (p.72). As for Al (non-expert #9), he explained that, because of the sense of hearing, he had a new and improved kind of experience with art because it now included auditory and spatial dimensions (pp.160-161). For both expert and non-expert participants, the sense of hearing also a fertile ground for the emergence of memories. These memories were numerous and of various types, including memories of a musical and emotional nature. The sense of hearing enhanced the appreciation and understanding of the installation work *Pomme de parterre* by providing aural, orientational, spatial, and physical dimensions to the art experience as well as substantiated it with memories. The sense of smell was particularly important to both experts and non-experts as a means for identifying and interpreting a major theme of the installation: the contrast between outside and

inside: the outside was perceived as fresh and alive while the inside of the installation was musty and evoked the idea of decay. The sense of smell also enhanced the experience of the expert and non-expert participants by evoking memories. These memories contained not only olfactory qualities but included, for Joe (non-expert #4), recollections that included physical dimensions, such as those of a wine cellar (p. 100). The sense of taste was useful to both experts and non-experts as a means of interpreting some of the artwork's concepts, such as the connections between eating and energy. As with the senses of hearing and of smell, taste evoked memories, in this case, that were related to eating or making food. The installation *Pomme de parterre* did not include any edible features aside from edible flowers or raw potatoes; only two participants tasted flowers and few discussed the sense of taste. For this reason it would be very interesting to study, in future research, what role the sense of taste would play for participants in a situation where an installation work featured a variety of tantalizing food for participants to taste. The sense of touch, however, added many meaningful aspects to the experiences of both expert and non-expert participants. By coming in direct contact with the cool materials of the installation, Robin (expert #7) came to understand the functional aspect of the shed as a cold storage for potatoes. The extensive manipulation of potatoes enabled Samuelle (non-expert #5) and Mona (non-expert #11) to understand that the positioning of the potatoes had a purpose other than creating an orderly visual effect. Its purpose was to keep the potatoes immobilized in order to form a battery. Use of the sense of touch provided information related to temperature and weight, that was useful to both expert and non-expert participants'

interpretation. Touch also functioned as an identification and verification tool for substantiating information about textures which sight alone could not provide. I conclude from the findings above that the senses of hearing, taste, smell and touch, were necessary in order to fully appreciate and understand the work of installation art *Pomme de parterre*. They also greatly enhanced participants' experience by providing aural, physical, orientational, spatial, imaginative and interpretative dimensions as well as information related to temperature and weight, and the recall of memories related to the art experience. I conclude from the findings that each sense contributed significantly to a understanding of the work of installation art *Pomme de parterre* and that**:** "different senses offer different benefits to the formation of knowledge" (Duncum, 2012, p. 186). Although the senses of taste, touch, smell and hearing contributed individually to their experience, participants also reported that they used these senses together and that their sensory experiences were interconnected. I found that participants' sensory experiences sometimes involved many senses working in concert and that the nature of installation art requires visitors to be receptive to such experiences. The fact that the senses work interdependently should be taken into consideration, as this interconnectedness may comprise an important part of participants' experience with installation art.

Physical Engagement and Kinetic Activities

The second question in this study asked: "How do physical engagement and kinetics activities play a role in expert and non-experts' appreciation and understanding of outdoor installation art?". It is clear from the results of this study that kinetic activities and physical engagement with the installation were necessary and favorable to the appreciation and understanding of *Pomme de parterre* for both expert and non-expert participants. To this end, both orientation and verification activities came into play. Orientation activities (such as following preset paths, using the stairs and walking through the potato shed) were useful to attend to all the parts that formed the installation and thus allowed participants to form ideas and interpretations about all of the installation's components as well as the relationship among them. Moving around was important in providing participants with a way of attaining different points of views. Also, moving around and through the installation proved necessary to attend to parts of the work about which other senses could not have provided information to the participants. For example, because participants could not see through the walls of the shed, participants had to physically enter this subterranean chamber in order to experience it. As orientation activities, these behaviors (such as going around the whole outside area of the installation) were ideal strategies for providing participants with an overview of the installation and as such were useful for dealing with the unfamiliar spatial organization of the installation and for situating the participants in relation to an unknown environment. Verification activities such as bending down, kneeling, sitting, jumping, and retracing steps were instrumental in attending to all the components

and materials that formed the installation. By using verification activities, participants were able to make connections between all the various parts of the installation, to study the relationships between the parts and form interpretations about their meaning. Verification activities were also useful to study anew elements of the installation and to collect further information about them. Verification activities created possibilities for participants to multiply their viewpoints and situations from which to experience the installation using their senses of hearing, smell, taste and touch. In this way, they helped to create experiences in which participants were not dependent on a single, unique point of view and this favoured more in depth understandings and more complex interpretations. These activities also helped participants to overcome physical obstacles such as closed pathways. There is no doubt that physical engagement and kinetic activities played an important, necessary role in the participants' appreciation and understanding of installation art.

Differences Between the Participant's Behaviors

Experts' Behaviors, Attitudes and Responses Regarding Touch

Whereas I have previously described similarities in the roles played by the senses and kinetic activities in the appreciation of installation by both the experts and non-experts in this study, there were also some differences. The most noticeable dissimilarity was the experts' behaviors, attitudes and responses regarding their use

of the sense of touch. All experts suppressed the urge to touch parts of the installation. The experts frequently and lengthily suppressed the urge to touch parts of the work by restricting the movement of their arms and hands, for example, by putting their hands in their pockets or crossing their arms behind their back or across their chest. The majority of experts considered that touching was prohibited. Most of them discussed this aspect in the interviews during Activity 2. For example, Lyne exclaiming: " I thought I couldn't do it. I thought that I was not supposed to touch!" (Douesnard, Raw Data, p. 60). The illicit aspect of touching was discussed again in the video recall activity when, Lyne, seeing herself with her hands clasped behind her back, commented: "I really don't want to touch anything!"(p. 205). Experts Lyne, Juliette, Nathalie, and Robin, all expressed feeling they should repress any touching, as this was a forbidden aspect of an experience with an artwork. Additionally, nearly all experts negated having engaged in some act of touching, thus dissociating themselves from any act of touching, or diminishing the importance of these activities of touching, even when the study documented several instances of such involvement. An example of an expert denying the use of touch even thought he did indeed touch on several occasions is Yvon (expert #12): he declared that touch had been the least used of his senses, yet he actively engaged in touching on many occasions. There is no doubt that experts' behaviors were related to their professional training and practice in art settings such as art museums "where", as Juliette put it, "you cannot touch" (p.60), or in situations in which these experts also teach their pupils not to touch. Falk and Dierking (1992, p. 66) put forward the idea that museums are behaviour settings. This would explain that the experts are

taught, trained and used to behave in a certain way around works of art – that is, in this specific case, not to touch them. So, in spite of being told that they could use any or all of their senses and that they were free to explore any part of the artwork, the expert participants were clearly reluctant to use their sense of touch. That all of the experts displayed various and numerous signs of difficulty regarding the use of touch is perhaps a testament to two shortcomings in art education. The first is that knowledge about installation art, an important mainstream contemporary art form, is not widespread even for people trained in the fields of fine art and art education[22]. The second is that experience with installation art is not common, even for people educated in the arts. The findings of this study suggest that expertise in fine arts doesn't necessarily extend to all of the current expressions of fine art, such as installation art. Expertise in installation art is developed only as the result of a sustained focus on this particular type of contemporary art.

Experts' Adaptative Verification Activities

Another notable difference between the experts and non-experts is that expert participants engaged more frequently and in much more varied ways in verification behaviours such as bending down, kneeling, sitting, jumping, and retracing steps. These behaviours may have resulted as a form of compensatory behaviour for touching as experts sought to replace the experience of touch by increasing their physical and visual proximity to parts of the installation, by visiting them anew, and by positioning themselves in different viewpoints and multi-sensory experiential

[22] See participants' backgrounds in chapter 3.

situations. As it turned out, experts were able to use these positive, adaptative strategies in order to enhance their experience of the art installation.

Importance of the Settings

The appreciation and understanding of installation art through the multi-sensory and physical engagement of the participants was facilitated and encouraged by the outdoor natural setting and the other elements that surrounded and constituted the installation work. I found that outdoor installations within the context of a garden festival to be helpful in nurturing the experience of the participants. My participants were enthusiastic about encountering outdoor installations that were part of a garden festival. In fact, many of them had to travel a significant distance to get to the research site: gardens were known to be familiar and enjoyable. Once on the site of the festival, participants felt at ease, relaxed and ready to spend time casually exploring the installation. Once on the site of *Pomme de parterre*, its outdoor natural setting (including trees, nearby river, frequent sunshine, wind and gravel paths) was attractive to participants. The natural setting of the installation served as an incentive for engaging with the installation. The setting was conducive to multi-sensorial and physical engagement because of its sensuous and formal qualities. When Robin (expert#7) described her first impressions of her encounter with the installation, she mentioned the smell of the conifers and the wood and feel of the cool gravel on her bare feet (Douesnard, 2010, Raw Data, pp.136-137). The natural

elements that made up the installation work, such as the flower beds with growing vegetation, were familiar, enticing, and conducive to experiences such as bending down to touch flowers, or, as Joe described, to walking down the stairs and picking up a nasturtium for a bite to eat (p. 104).

Participant-Related Findings

Importance of Previous Knowledge and Experience

In the last section, I discussed the main findings of the study by reviewing the two research questions. Here, I want to address two important, yet unforeseen findings. The first is the importance of participants' previous knowledge and experience and the second is the importance of stopping and pausing in participants' experiences.

Past experience and prior knowledge are fundamental factors in learning (Falk and Dierking, 1992, 2000, Hooper-Greenhill, 1994, 1999, 2004, 2007b; Hein, 1998; Henry, 2010; Rochelle, 2012). Furthermore, in the context of museums, learning can only happen when visitors can associate what is presented in the exhibit to what is previously known to them and when museum visitors can make links between their knowledge and experience and what is offered (Hein, 1998, p. 152). One of the most significant influences of prior knowledge on both the expert and non-experts' experience in this study were the numerous memories that re-surfaced during their visit of the installation. The participants discussed these memories often and at

length during the interviews and video recall activities. Memories were often related to the senses of hearing, taste and smell. They greatly enhanced participants' experiences by giving them personally meaningful stepping stones from which to launch their exploration of the installation and by enlarging and enriching their interpretations of the work. Both expert and non-expert's sensorial and physical memories referred to daily life experiences such as cooking and eating. But experts' sensorial and physical memories differed in that they also referred to previous encounters with artworks, such as artworks that made distinctive and similar sounds to those produced by *Pomme de parterre.* Both kinds of previous backgrounds were helpful, as participants could associate what they were encountering to what was previously known to them.

Prior experience also influenced the behavior of the only two participants who ate nasturtiums, an edible flower. Yvon (expert #12) and Joe (non-expert #4), had both previously eaten these kinds of flowers in salads. Concerning the use of touch and past experiences, there is little doubt that experts' behaviors in suppressing touch were the result of their past professional training and practice in art settings where touch is proscribed. As regards previous experiences and physical engagement, only Mona (non-expert #11) and Yvon (expert #12) strayed from the prescribed paths as they both sought to enlarge what they believed to be the restrictive nature of the installation's network of pathways. A non-expert and an expert, they were the two participants with the most knowledge and past experience with outdoor installation art and the only two participants to have visited this installation in the previous

year. From these findings, I can conclude that participants' orientational familiarity based on previous experiences worked as meaningful starting points from which to start their exploration and helped to deepen their interpretations. I can also conclude that participants' previous experience and knowledge guided the participants' behavior when engaging the installation both sensorially and physically.

Importance of Stopping and Pausing

Participants physically engaged the installation work in a variety of ways, using orientation and verification activities. During these events, other, unplanned activities also took place, such as stopping and pausing behaviors. Findings of this study revealed that both the expert and non-expert participants, usually did not take time to stop and pause to study a work of art. While Nathalie (expert #3) revealed: " I don't usually spend that much time [with artworks]"(Douesnard, 2010, raw data, p. 90), Lyne (expert #1) echoed that on her own: "I probably would have gone more quickly" (p. 206). During this study, participants complied to my instructions by spending at least 5 minutes engaging this one installation work. If they wanted to do so they could continue to explore it for a total of twenty minutes. Because of this, many participants were able to dig deeper into the possible meanings of the work and benefit from their experience with the installation by stopping and pausing. They were able to recognize and put together all the diverse material and conceptual elements of the work: they explored the installation from multiple points of view. Also, they came up with different interpretations than they would not have

otherwise had they not taken the time to stop, pause and carefully scrutinize the installation. As Lyne (expert #1) explained, had she not taken more time: " I may not have tried to figure it out in the same way that I did this time" (p. 206). Findings also showed that, because they walked through the installation site more than once, participants made important, even breakthrough discoveries such as noticing the heirloom variety of potatoes named on the pathways' floorboards. Taking a long period of time to explore the work often meant actually entering the vital interior part of the installation. As a result of these findings, installation art venues should encourage their visitors to take more time to experience a work of installation art and to visit it again as well. Venues such as outdoor garden festivals, contemporary art festivals and symposiums, art galleries and museums might accomplish this goal using the following strategies: present fewer works at one time, propose a minimum amount of time to spend visiting each work, and provide visitors with free return-visit tickets with each paid admission.

Video Elicitation: A Tool for Research and Learning

In the last section, I reviewed two important, yet unforeseen findings: the importance of participants' previous experience and the importance of taking the time to stop and pause while exploring an installation. Here, I want to review a last significant, if unforeseen, finding: the educational contribution of the use of video elicitation originally intended only as a research procedure. Video elicitation

provided valuable research data but it also encouraged participants' self-reflective learning. Particular characteristics of the video elicitation procedure made it an exceptionally effective research tool. These are: 1) participant-controlled video playback; 2) high quality video and audio playback; 3) a real-time record of all the data; 4) a perspective in the visual framing of the recording of Activity 1 that was close to the participants' own point of view.

Self-reflective learning was observed in three main categories of participant comments: explanations, expansions of previous ideas and new realizations[23]. Explanations revealed participants' own learning strategies and patterns, as well as motives for certain behaviours and thought processes. Expansions of previous ideas also brought to light intentions behind certain behaviours but also focussed on the subconscious aspect of some of the participants' behaviour (such as the suppression of touch), and helped participants to situate events (such as hearing a particular sound) in a time-line. New audio and visual realizations led participants to new interpretations of the work of installation art. The video elicitation review activities enabled participants to become aware of their subconscious behaviours and helped them to understand and articulate a variety of reasons and motivations behind their sensory and kinetic behaviours. The real-time video recordings provided by a single continuous take made it possible for participants to identify and determine their own time-line regarding a variety of experiences and memory events.

[23] These categories are akin to those of Lachapelle's follow up interviews (Lachapelle, 1994, pp. 164 to 169).

The fact that participants were given full control over the video elicitation activity allowed them to pause the video playback, or to go back and forth at will, and to do this as many times as they wished. In this way, participants were able to reconstruct specific events in their encounters and, by recalling the event, include in this reconstruction any information that was not readily visible in the video recording. Recording and playback equipment of high visual and audio quality helped participants see and hear details of their experience with the installation work which they had not been aware of before the video recall activities. The video recording that was used in the video recall activity was shot from a perspective that was close to the participants' own point of view. Because of this, when reviewing the video in the video recall activity, participants had little difficulty reliving their initial experience. This proved to stimulate their memory as well as create ideal conditions for them to become aware of new elements of their experience. For researchers, there is a particular way to record the video recall activity that is useful for research transcripts and analysis. This is done by opening the angle between the participant and the video monitor and recording both in the same picture frame. This way, the researcher can document the precise relationship between the participant's comments and the related segment in the original video recording that the participant is commenting on. From there, the researcher can also go back to the original video of the activity to confirm or disprove any event.

Recommendations for Art and Museum Education

Installation Settings

Installation art is unique, complex, and different from other types of art. Places where encounters with installation art occur, such as outdoor gardens, contemporary art festivals, symposiums, art galleries and museums, should provide more information about installation art's aims and characteristics. Whether this information should be given at the outset of the visit or at the end is something that further research might determine. The majority of expert and non-expert participants in this study were grateful for the information about the installation provided by Reford Gardens. Nevertheless, many participants considered it important to read this information after visiting the installation, since they thought that receiving it before would probably have altered their interpretation of the work. Future study may help to find out when this type of information can best be provided.

One of the important characteristics of installation art is the numerous components that constitute each single installation. This creates the need for visitors to attend to all its parts as their combination and interrelationship are the source the meanings of the work. During this study, at least two participants had to be guided back onto the site of *Pomme de parterre* as they drifted to the site of another installation

without having first attended to most of the elements of *Pomme de parterre*. Two other participants did not initially go inside the potato shed, which is the conceptual center of the work. During my month long stay in preparing for the study, I saw, on numerous occasions, visitors not entering the shed at all. On-site art educators, along with written, audio or interactive information about installation art might help visitors attend to most or all of its elements. Another important characteristic of installation art is that it considers the sentient being as its focus and, therefore, it demands interaction. Again, a combination of on-site information and educators could encourage interaction when needed. For example, I have recently seen "please do touch" signs in some exhibitions which delighted the public and encouraged this type of interactivity.

Curriculum

This study has demonstrated that the use of the senses of hearing, touch, smell and taste have brought new and unique dimensions to the appreciation of installation art. Including these aspects to the existing content of art appreciation classes could permit a more appropriate understanding of this form of contemporary art. Similarly, the complex events in the development of 20th century art movements, which have culminated into this unique and varied form of contemporary art, should be part of the art education classes pertaining to contemporary art. Doing so would ensure that students better understand the unique characteristics which comprise this now mainstream form of contemporary art. I would also recommend that educators provide their students with first hand experiences with installation

art as these can impact on the development of sensory and other skills; also, they create new experiences and memories from which students can work from. I would recommend, for example, first hand encounters with some of the work of Anne Hamilton, who is known for her "toothpick suit" made out of thousands of toothpicks; her sensuous installations often use fabrics and organic materials, which are appealing to the sense of touch and of smell. Closer to home in Canada, I would recommend one exceptional and accessible first-hand experience of installation art that uses the sense of sound as well as physical engagement: Janet Cardiff's *Forty Part Motet* (exhibited at different times between 2001-2012). Located in the Rideau Chapel inside the National Gallery of Canada, the installation is made of forty individual speakers placed around the chapel, with each one rendering the single independent voice of a member of a forty-voice ensemble.

Multisensory Artworks in Museum Settings

In the context of museum education, it is important to remember that art objects often have more than just visual components. Works of art with multi-sensory contexts can provide a more accurate, rounded picture of an art piece for museum visitors. For example, the geometric design of the Shipbo-Conibo clothing and artefacts are based in sounds (Howes, 1991, p. 265). These designs appear to the Shipbo-Conibo shaman when he is in trance; when they reach the shaman's lips he utters the designs in songs (Howes, 1991, p. 265). To make these points, museums could address the sensory contexts of objects by recreating their physical

environments to include the sounds, smells, textures and tastes of the object's original surroundings. Even without a physical recreation of the multisensory and physical contexts of exhibits, museums could produce visual recreations of such contexts or find other ways to appeal to visitors' imagination in order to recreate the spatial and sensual worlds of these objects or works of art by inviting them to reflect on their original multi-sensorial and physical contexts.

Recommendations for Future Research

Sensitization

This study highlighted how beneficial the use of the senses of smell, taste, hearing and touch and the use of physical engagement were to adult expert and non-expert participants in their appreciation and understanding of installation art. Because of this, it would be interesting to pursue research that examines the possibilities of preparing a variety of visitors for encounters with installation art. Because the sense of smell, touch, taste and hearing each provide unique dimensions to the experience of installation art, sensitization to each of these senses could perhaps provide enhanced experiences with installation art. For example, future study participants might be prepared for new sensory experiences through discovery activities such as touching stone sculptures, ceramics, quilts or woven baskets and, then being asked to describe their latter encounters with other works of art. They could also be provided with textural experiences that are outside of the usual art material

encounters to prepare them for the more atypical experiences that some installation art offers. Ideally, sensitization execises with the senses of touch, smell, taste and hearing, would aim to evoke as many aspects of each sense, as previously discussed in details in Chapter 6 and enumerated above in the review of the research questions. This is so that future participants might recognize these dimensions in their encounters with installation work and have as enhanced an experience as possible in keeping with the purpose of installation art.

Another interesting path for future investigation would be to examine whether sensory preparation could be beneficial to the appreciation and understanding of other visual art forms. Many visual art forms appeal to other senses as well as the sense of sight. For example, many paintings of the 1920s, such as the work of Wassily Kandinsky (1866-1944), were influenced by jazz music and allude to a musical aspect; still life paintings obviously appeal to imagined senses of smell and taste. That other forms of visual art appeal to other senses in addition to the sense of sight is also true of much of indigenous art from various cultures. This is because different cultures value the senses in different ways and represent them differently than we might. For example, the Tsimshian " 'wraparound' visual representation of Bear corresponds to the experience of sound, which also envelops and surrounds one" (Howes, 1991, p. 265). To the Tsimshian, the experience of Bear is aural and physical. When this experience is drawn, i.e. is translated into a visual representation, it takes the shape of a cut out - like a cut out doll - which can be

folded into the three dimensional shape of a bear. Various forms of contemporary art also address multi-sensory aspects of our beings. As Duncum puts it:

> In contemporary art, there has appeared a variety of frequently overlapping tendencies that are intentionally dealing with multisensory experiences. These have included examples of women's art, performance art, indigenous art, (…) interactive art and art exploring new technologies (2012, p.188).

Because the findings of this study show how the dimensions brought by the use of touch, smell, hearing and taste have extended and deepened the participants' experience of installation art, the possibility of adding these dimensions to the teaching of aesthetic experience with many other types of art is both promising and exciting.

Remembering

The senses of hearing, smell and taste were catalysts for numerous and varied memories which served to expand and deepen participants' experiences. This is why I think it would be interesting to study how these senses contribute to the recall of appropriate memories and to verify how this benefits visitors' encounters with installation art. It would be interesting to investigate whether the sense of touch also serves to trigger memories. The present study showed that experts in particular often suppressed the urge to touch and that they were strongly

influenced by past experiences where touching is forbidden. In the case of future research with experts it might be interesting to explore this further.

Orientation and Verification Activities

Since physical engagement through various kinetic activities, such as orientation and verification activities, proved beneficial, even sometimes vital, to the appreciation and understanding of installation art, the use of interaction with installation art could be addressed in future research. Potentially, these research activities might be centered on the use of interactive games where installation is viewed as a discovery activity. The objective of such research would be to validate that physical engagement provides physical and intellectual access to the location of the different elements that make up the installation and to different and multiple viewpoints.

When participants walked around the outer area of the installation they were able to construct an overview of the installation. This was a brilliant strategy for getting accustomed to the unknown spatial organization of the installation site and for situating oneself in an unfamiliar environment. It would be interesting to study whether visitors in museum settings could benefit from being taught this kind of overview activity. Perhaps overview activities might help museum visitors to situate themselves in the overall museum space as well as within the exhibitions. Also, in this way, overview activities might help visitors to identify individual pieces on

which to focus their attention, since, in this study, spending more time on one installation has proven to be beneficial to its understanding and appreciation.

Bending down, sitting, squatting, and retracing one's steps are strategies that the participants used to verify initial impressions about parts of the installation. Such verification activities enhanced the participants' experience of the work of installation art. They helped participants to choose which part of the work to attend to, made it possible to come back to specific parts, and to do so as many times as needed. It would be interesting to study whether visitors in museum settings could benefit from the use of these kinds of verification activities in encounters with other kinds of art works. More specifically, it would be interesting to study visitors' spontaneous unstructured visits, those in which viewers freely choose and move from one piece of the exhibition to the next and back again. This research could help to explain whether verification activities help viewers to make more meaningful, personal discoveries, thus leading to more satisfying learning experiences, where visitors personally construct their learning experiences rather than follow the one-directional route often proposed by exhibition designers.

Verification and orientation activities also helped participants multiply the points of view and locations within the installation site from which they approached and appreciated installation art. It would be interesting to study whether visitors in museum settings could benefit from using these kinds of verification and orientation activities with other kinds of art works. That is, to study what learning occurs when

participants are able to position themselves from different distances, positions and points of view in order to experience the work of art. A good example of an exhibition strategy for enabling this kind of learning experience is the way mirrors were used in the 2011 exhibition *The Warrior Emperor and China's Terracotta Army* at the Montreal Museum of Fine Arts. By placing mirrors at the base and behind the terracotta warriors the exhibition designers gave a broader 360-degree perspective from which to examine the statues.

Chaumont-sur-Loire International Garden Festival

Because this study focused exclusively on adult participants, it might be interesting to pursue research that focused on preparing participants of different ages for encountering installation art. Children might be naturally inclined towards sensory and physical engagement whereas adolescents might enjoy the unrestrictive learning environment of installation sites. The Domaine of Chaumont-sur-Loire in France could be an ideal research site for such research. This site already offers beneficial research conditions for installation art because of its outdoor, natural setting in gardens along the Loire River in rural France. The Domaine of Chaumont-sur-Loire is an outdoor international gardens festival; it also has the advantage of having an active educational vocation. Chaumont-sur-Loire has educational programs that prepare visitors of all ages, including school groups comprised of children and adolescents, for encounters with installation art (Domaine de Chaumont-sur-Loire, 2009, 2013). Because the Domaine's pedagogical strategies

include sense awareness exercises, it could also prove a valid place for the study of sensitization work, which I proposed earlier as a possibility for future research.

This dissertation started with the desire to investigate learning related to the sensory and physical nature of installation art and to propose possible strategies for teaching the understanding and appreciation of installation art. This study has achieved this goal and, hopefully, multi-sensory and physically engaged learning with installation art will not be just a good idea or a passing fad. Both our senses and our body can shape the nature of our learning with installation art and, hopefully, with other kinds of art as well. It is time to adapt the old adage from: " I think therefore I am" (Descartes 1596-1650) to: "I think and sense and move, therefore I am - also".

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Appendices

Appendix A

A map of the location of Reford Gardens on the south shore of the St-Laurent river in Quebec, Canada. The position of the Gardens on the map appears as Métis next to a large white flower - the French name for the Reford Gardens is " Jardins de Métis" . (Plan by Reford Gardens, 2013, used with written permission of Reford Gardens).

Appendix B

Map of the Gardens including the original traditional gardens and the site of the International Garden Festival on the far right side. Many participants joined the study seeking to also visit the traditional gardens; participants of the study often elected to visit the traditional gardens before or after engaging in the data gathering activities. (Plan by Reford Gardens, 2013, used with written permission of Reford Gardens).