



A new space for interaction?

An empirical study on Bourriaud's relational aesthetics and interactive art

Master thesis

Marion Lumens 388799

Marionlumens@student.eur.nl

Master: Arts and Culture Studies

Specialization: Arts, Culture and Society

Erasmus University Rotterdam

Erasmus School of History, Culture and Communication

Supervisor: Prof. Dr. C.J.M. van Eijck

Second reader: MA C.J. van den Dool

Rotterdam, June 4, 2014

Preface

'Can art just be difficult?', my friend asked me, one afternoon while having a drink. 'Or, should we go to an exhibition with an *IKEA*-type manual, which is showing us step-by-step what we are looking at and which explains the meaning of the artwork in an oversimplified way?' My friend asked me these questions, reacting to comments of acquaintances who did not visit exhibitions often, because they did not feel they could understand the art; a critique often heard within the context of modern art. The questions made me think; I was very keen on art being accessible and hoped to see exhibitions attract an even wider audience. Difficult, philosophical contemplations about the meaning of art were perhaps not inviting to different groups of people that did not visit the museum easily, but does this imply that difficult texts or artworks should be removed? Should it all be clear and easy? I also wondered how necessary it is to cognitively understand the meaning of an artwork. Can meaning be created in other ways, rather than logical reasoning or deep rational contemplation? These questions lie beneath the surface of my master thesis: questions that I find very interesting, because they are about the involvement of visitors. The questions have a clear sociological nature, since they are related to visitors' experiences in relation to the exhibition environment.

In the development of my thesis I am very grateful for the attentive support and feedback of my supervisor Koen van Eijck. He introduced me to the quantitative processing of the data from the observations through *SPSS*, which was new territory for me. I would like to thank *Kunstsammlung NRW*, and specifically curator Susanne Meyer-Büser, as well, for allowing me to conduct the interviews and observations among visitors of the exhibitions *Avant Garde in motion* and *In Orbit*. I realize the unicity of an installation like *In Orbit* in the context of a museum. It was special to witness the experiences of visitors with this this installation from such a close perspective.

Marion Lumens

Rotterdam, 2014

Abstract

The growing need in the museum sector to attract a wider audience, has led to more attention for the visitor experience. There has been a change in discourse in which the visitor is not perceived as a passive observant, but as a participant who actively assigns meaning. The growth of interactivity at museums could, however, be viewed as entertainment, and rule out the process of signification. In *Relational Aesthetics* it is assumed that the critical function of exhibitions could be remained when new technologies in art could be used to stimulate social behavior. In a public sphere where spontaneous sociability has been repressed by mechanization, the exhibition could function as an interstice. This research focused on how the social behavior and experiences of visitors could be affected by the possibilities for interaction at two exhibitions. First, I observed the arrangements of *Avant Garde in motion*, with art of Alexander Calder, and of *In Orbit* with the physical accessible installation of Tómas Saraceno. I did covered participatory observations on the social behaviors of visitors of both exhibitions. This was followed by in-depth interviews on the experiences of visitors.

At the Calder exhibition, visitors kept a composed attitude while they were standing or walking with a serious expression and in silence or whispering. The little interaction was aimed at direct companions. I related this to the arrangement of the exhibition space, which seemed to direct visitors behaviors in an indirect way through created platforms and a walkway, preventing visitors from coming to close to the mobiles and sculptures and directing their walking route. From the interviews it became evident that visitors felt limited by the restrictions on the movement of the art and the presence of the attendants. The abstract nature of the art mostly evoked questions and conversations about the design. Some visitors felt that the art needed no explanation or discussion. It was difficult for the visitors to describe their feelings and the physical involvement was of indirect nature.

The observations at the Saraceno exhibition showed that visitors talked more, even a bit to unknown visitors, smiled and laughed more and showed a wider range of physical activities. *In Orbit* was a large, physical accessible installation high up in the museum building. Areas were created through a division of three levels of net structure and the placement of spheres and a pillows. The interviews pressed the physical- and emotional involvement of visitors: the physical adaptation process left little scope for cognitive reflection. In addition, a wide range of emotions was experienced and this was the key topic of conversations. Some visitors stated that the installation reminded them of an amusement park, the interactivity was mainly perceived as entertainment. However, I discussed the possible signification of visitors' physical appropriation of the space; breaking with dominant museum standards as silence and composure, and inhabiting the installation as a 'lived space' instead of a conceptual area.

Table of contents

| | |
|---|----|
| Introduction | 1 |
| Chapter 1: <i>Relational Aesthetics</i> and interaction | 4 |
| 1.1 Relational form | 4 |
| 1.1.1 Interactive technologies | 5 |
| 1.1.2 The context of the relational form | 7 |
| 1.2 Features of relational art | 8 |
| 1.3 The subversive vision of Relational Aesthetics | 10 |
| 1.4 The involvement of the audience and social behavior | 11 |
| 1.4.1 Interaction | 12 |
| 1.4.2 Interpersonal relations | 13 |
| Chapter 2: The experience of visitors in relation to the exhibition space | 15 |
| 2.1 Developments in museum studies on visitor experience | 15 |
| 2.2 The experience of the exhibition space | 19 |
| 2.3 Participation of museum visitors | 21 |
| 2.4 The interactive exhibition | 22 |
| Chapter 3: Methodology | 25 |
| 3.1 Research question and sub-questions | 25 |
| 3.2 Methods of research | 26 |
| 3.3 Expectations | 30 |
| Chapter 4: The set-up of the exhibition space | 32 |
| 4.1 The set-up of the exhibition space of <i>Avant Garde in motion</i> | 32 |
| 4.1.1 Exhibition space <i>Kleehalle</i> | 34 |
| 4.1.2 Exhibition space <i>Grabbehalle</i> | 39 |
| 4.2 The set-up of the exhibition space of <i>In Orbit</i> | 40 |
| 4.3 Conclusion | 45 |
| Chapter 5: The relation between the social behavior of museum visitors and the spatial set-up of the exhibition | 46 |
| 5.1 The subjects | 46 |
| 5.2 The categories of observations | 47 |
| 5.3 Results of the observations | 48 |
| 5.3.1 Observations on the type of artworks | 48 |
| 5.3.2 The activities of the subjects | 50 |
| 5.3.3 The facial expressions of the subjects | 51 |
| 5.3.4 Verbal and nonverbal interaction of the subject | 52 |
| 5.4 The social behavior of visitors in relation to the artworks | 53 |
| 5.4.1 Activities of subjects around the artworks | 54 |
| 5.4.2 Expression and interaction of subjects around the artworks | 58 |
| 5.5 Relations between social behaviors of visitors | 61 |
| 5.5.1 Activities of the visitor in relation to their expression and (non)verbal interaction ... | 61 |
| 5.5.2 Facial expressions of visitors in relation to their interaction | 62 |
| 5.5.3 Verbal interaction of visitors in relation to their nonverbal interaction | 64 |
| 5.6 Summary | 65 |

| | |
|--|-----|
| Chapter 6: The relation between the experience of museum visitors and the spatial set-up of the exhibition | 66 |
| 6.1 Conducting the interviews | 66 |
| 6.2 Conversations between visitors | 69 |
| 6.2.1 Conversations with companions | 69 |
| 6.2.2 Conversations with unknown persons at the exhibition | 76 |
| 6.3 The emotional and physical involvement of visitors with the exhibition | 78 |
| 6.3.1 The emotional involvement of visitors with the exhibition | 78 |
| 6.3.2 The physical involvement of visitors with the exhibition..... | 82 |
| 6.3.3 Limitations on the involvement of visitors with the exhibition | 85 |
| 6.4 The experience of visitors with the exhibition space | 88 |
| 6.4.1 The experience of visitors with the set-up of the exhibition | 88 |
| 6.4.2 The experience of visitors with the context of the museum | 90 |
| 6.5 The process of signification to the art..... | 94 |
| 6.5.1. The appreciation of visitors for the texts in the exhibition space..... | 94 |
| 6.5.2 The questions that the exhibition evoked with visitors..... | 97 |
| 6.5.3 The interpretation of the art by visitors | 99 |
| 6.7 Summary | 102 |
| Chapter 7: Conclusions | 104 |
| 7.1 The relation between the social behavior of visitors and the set-up of the exhibition | 104 |
| 7.2 The relation between the experience of visitors and the set-up of the exhibition | 105 |
| 7.2.1 The experience of the social sphere..... | 106 |
| 7.2.2 Degree of involvement with the art | 106 |
| 7.2.3 The experience of the museum environment | 107 |
| 7.2.4 Signification | 108 |
| 7.3 Final conclusion..... | 108 |
| 7.5 Discussion and recommendations | 111 |
| Bibliography | 114 |
| Appendices | 216 |
| A. Table correlations observations | 216 |
| B. Observation scheme | 221 |
| C. Overview observations | 222 |
| D. Interview guide | 154 |
| E. Transcript interview Saraceno exhibition | 156 |
| F. Transcript interviews Calder exhibition | 218 |

Introduction

“People travel quite a bit around the world. But why do people travel to Palma de Mallorca, when the vertical journey is barely explored? ... Why can't we build a city above the clouds, with houses that float and are carried by the wind? Imagine the freedom that you would experience. That is an entire new form of mobility.” (Saraceno, 2013, as cited in Van der Zee, p. 20-21)

Tomás Saraceno (1973) is an Argentinian architect and artist, based in Berlin, Germany (Van der Zee, 2013). He creates floating spaces that are reminiscent of bubbles, cloud formations or networks. In the quotation, Saraceno's utopian vision becomes clear. He imagines a kind of urban space that is detached from the ground and situated in the sky (Saraceno, 2013). Interaction with people is a key element in these architectural projects: visitors can enter the floating spaces, walk, sit or lie down in them. Saraceno (2013) explains: “Much of my work is about involving people into a dialogue. My installations invite visitors to enter the artwork, and experience them firsthand” (as cited in Van der Zee, p. 25).

In this research I wanted to gain more insight in the way that interaction and participation were stimulated among visitors of Saraceno's spatial art installations. I focused on visitors from the exhibition *In Orbit*. This exhibition runs from June 2013 till autumn 2014 in the German *Kunstsammlung Nordrhein Westfalen (NRW)*, in the space of K21 Ständehouse, Dusseldorf. The exhibition consists of a transparent installation in the top of the building (Kunstsammlung Nordrhein Westfalen, 2014). The artist constructed a net from steel wire, with differences in height. On the net, six inflated bubbles were installed with a diameter of about eight meters. Visitors could enter the net, walk on it and view the whole museum from above. To gain insight in whether the interaction among visitors of this spatial installation was in any way particular, I needed to compare the behaviors and experiences of visitors from *In Orbit* with those of visitors from another exhibition, where physical participation was limited. I chose the exhibition *Avant Garde in motion* that also took place in *Kunstsammlung NRW*, but at another building, namely K20 Grabbeplatz (Kunstsammlung Nordrhein Westfalen, 2014). The exhibition took place from September 2013 till the end of January 2014. It was a retrospective of the art of Alexander Calder (1898-1976). He made mobiles that were moved by air and abstract sculptures that related to space. I chose this exhibition because it was arranged by *Kunstsammlung NRW* as well, and by the same curator as *In Orbit*, namely Dr. Susanne Meyer-Büser. It was also an exhibition that contained modern art, with a focus on the interaction with space. Therefore I expected that found differences between the behaviors and experiences of visitors could be mainly attributed to the interactive set-up of the exhibition *In Orbit* instead of factors as research

group or type of art. I expected that a similar audience visited the exhibition, despite the fact that it was in another building, because the type of art was comparable with its clear relation to space and contemporary character.

To gain more insight in social behaviors and participation of visitors of these exhibitions I formulated the following research question: *How do the possibilities for interaction with the artwork(s) at the exhibitions In Orbit and Avant Garde in motion affect the social behaviors and experience of museum visitors?* I derived the notion of interaction from art critic Nicholas Bourriaud's *Relational Aesthetics* (2002). In this theory, he states that contemporary art should focus on the encounter with the visitor. Does it provoke interaction? Art is situated in a social context in which people ask questions, exchange ideas and comment; this is how people enter into interpersonal relations.

Recently, under pressure of cuts and reforms in the museum sector, the attention for the accessibility of the museum has grown (Vom Lehn, Heath and Hindmarch, 2001). Museums want to get rid of their image as 'elitist institutions' that are too focused on a select group of visitors: white, upper class intellectuals. Jocelyn Dodd (1999) is one of the theorists that blames museums for not successfully attracting a diverse group of people with different cultural backgrounds, different religions and different ethnicities. In order to enlarge the accessibility of museums, consideration for the experience of the visitor has increased. The question how museums can become more approachable won its place on the political agenda of Europe and North America (Vom Lehn, Heath and Hindmarch, 2001). This had led to the emergence of new, alternative galleries, as well as changes in existing museums. New developments are aimed at audience participation and sociability. Art galleries and museums develop different tactics to stimulate interaction among visitors. An *iPad* with multimedia content, interactive displays, and a shop or museum cafe are examples of facilities designed to promote exchange and engagement.

The attempt to increase the accessibility of art exhibitions asks for more insight in the experiences of visitors. It is therefore remarkable that empirical, sociological research on the experiences of the museum public is limited (Vom Lehn et al., 2001). Contemporary research has mainly focused on progressive ways of collection display and the potential societal function of museums. Most empirical research among museum visitors has been aimed at composing profiles of visitors (Goulding, 2000). Researchers who did focus on the experiences and behaviors of visitors were interested in cognitive responses, or approached it from a pedagogical perspective. The question, 'how do the visitors experience their visit to the museum', is central in this research and I will relate the question to current developments in the humanities and art sociology concerning the changing perspective on the role of museum visitor and the museum environment.

In current studies, museum visitors are not perceived as passive consumers of the museum environment, but as active participants or users (Goulding, 2000). This change in approach is related to new developments in the interactive design of museum spaces. Characteristic for the context of modern museums is the intersection of amusement and contemplation, so-called 'infotainment'. Theorists such as Pine and Gilmore (2011) emphasize the importance of an interactive design of museum spaces in order to engage visitors' attention, especially in a society filled with competing, interactive leisure activities. However, next to the external conditions of the museum, there could be an intrinsic factor to art as well, which can evoke interaction, according to Bourriaud (2002). Saraceno's installation *In Orbit* could be an example of this. The installation exemplifies the influence of new, innovating techniques in the arts: a net structure was constructed in the exhibition space where people could walk over and the placement of inflatable spheres creates a futuristic image. The interactive possibilities of these new technologies, should be used to stimulate social behavior, according to Bourriaud (2002). His theory has, however, not been empirically researched yet, therefore it remains of philosophical nature and it can be questioned whether there is a certain type of art that inhabits the quality of stimulating social behavior. Bishop (2004) thinks that the idea of visitor participation is not original at all. The actual challenge for contemporary art is gaining insight in how art can activate the spectator. I therefore believe that this empirical study can contribute to a better view on the stimulation of visitors' participation through contemporary art and the potential effect of this stimulation on the social behaviors and experiences of visitors. This is of societal relevance, because these insights can contribute to potential ways of increasing the accessibility of the museum space. The scientific relevance comes from more insight in the influence of new technologies in the arts on the museum culture: the behaviors of visitors, the handling of museum standards and the shift from the central place of the art object to the attention for visitor experience.

This thesis is structured along different topics. In the first chapter, Bourriaud's theory on relational aesthetics will be explored, relating developments in the arts to the participation and interaction of museum visitors. The second chapter focusses on the experience of visitors in relation to the exhibition space. Theories on the inhabitation of (city) space will be related to a participative role of visitors and the interactive exhibition environment; the experience economy. This chapter will be followed by an outline of the methodological design of the research: the research questions, methods of research, data analysis and my expectations for the outcomes. The results will be treated in two different chapters. The first goes into the relation between the exhibition space and the social behaviors of visitors, while the second is aimed at the experience of museum visitors in relation to the exhibition space. The thesis will be completed by a final chapter with the conclusions in which I will interpret the results and offer some final recommendations.

Chapter 1: *Relational Aesthetics* and interaction

The concept of interpersonal relations will be treated in the context of Nicholas Bourriaud's text *Relational Aesthetics* (2002). During the 1990s, new initiatives in the arts asked for another perception on the meaning of it, different from just conceptual art. Visual arts produced after 1945, in which the idea behind the work becomes leading, were often designated as 'conceptual'. The ideas that were foregrounded in these works often focused on power relations and the deconstruction of dominant worldviews. According to Bourriaud (2002), contemporary art should not only be perceived in terms of concept or deconstruction. Key to these works are interaction and encounters with the viewer. One of the motives for the growing attention for the relational aspect of the arts is connected to the rise of metropolises and changes in mobility (network of roads, telecommunications). After the Second World War, cities around the world grew quickly. This led to other, more limited forms of social exchange (Bourriaud, 2002). The urban area had certain cultural conventions. Pedestrians were secluded from bikers, cars, buses or trams. Systems such as traffic lights and road signs controlled the crowds, leaving little space for social behaviors. The handling of the crowdedness of the urban area created division. However, the cultural conventions separating the mass of people in the city did not apply in the spaces of exhibitions, according to Bourriaud (2002). In fact, these spaces stimulated social interaction. People exchanged ideas and visions while looking at an artwork, they asked questions or commented; they engaged in interpersonal relations.

In this chapter, I will first address Bourriaud's view on the relational aspect of contemporary art. I will then cover some features of contemporary art that expose a relational nature. This will be followed by critique from other theorists on the subversive vision underlying *Relational Aesthetics*. Then, the way the audience gets involved and the expression of interpersonal relations will be treated, followed by a description of the terms 'interaction' and 'interpersonal relationships'.

1.1 Relational form

According to Bourriaud (2002) there is a misunderstanding in interpreting art from the 1990s onwards. Too much attention goes to the methods of the artist and the exposed artistry, which are designated as conceptual and deconstructive. This leaves certain questions unaddressed. The first of these questions is that of the materiality of the art object. Bourriaud (2002) presses the importance of form: "[a] coherent unit, a structure (*independent entity of inner dependencies*) which shows the typical features of the world" (pp. 19). Thus, form is expressed as a compounded entity containing certain characteristics that refer to elements in the world around us; whether societal, economic, environmental, and of a different nature. Bourriaud (2002, p. 11) specifically uses the term "relational form" for contemporary art in which the form, which refers to elements of the surrounding society,

evokes questions, raises discussion or stimulates interaction. The activity of looking at the form of such an artwork therefore has a dynamic and interactive nature, viewers become actively involved. "Each artwork is a proposal to live in a shared world, and the work of every artist is a bundle of relations with the world, giving rise to other relations, and so on ..." (Bourriaud, 2002, pp. 22). Although interesting, Bourriaud's description of the relational form is a bit confusing as well. Where he first pressed the materiality of the object and its internal structure, later he mainly refers to the relation between the object and its viewers (the relational sphere). Perhaps the attention for the inner structure of the artwork is just a way of distinguishing relational art from the limited vision on conceptual art as deconstructive, pressing the materiality of the object. Professor of contemporary art Claire Bishop (2004) critiques Bourriaud's explanation of the form of an artwork as well. She feels that he simplifies the notion of form by equating the structure of the object to its content. The idea of analyzing the structure of an artwork might be interesting, but also very complex, all the more so because Bourriaud (2002) claims that 'form' is not a fixed concept, but one that is open to change and influence. The fact that contemporary art often has a hybrid nature in the form of performances or installations makes the analysis even more difficult (Bishop, 2004). The performance or installation requires the direct presence of the viewer or visitor. The visitor should question whether the artwork evokes conversation and discussion, according to Bourriaud (2002). But this question is not exclusive to contemporary art, it could be asked in front of other works as well, argues Bishop (2004). She therefore asks: "I am simply wondering how we decide what the 'structure' of a relational art work comprises, and whether this is so detachable from the work's ostensible subject matter or permeable with its context" (Bishop, 2004, p. 65).

1.1.1 Interactive technologies

The development of a relational aesthetic in the arts would be a reaction to a convincing urge in society for new forms of social interaction (Bourriaud, 2002). The fast growth in communication techniques lies at the roots of this change. New technical developments lead to new possibilities regarding the form of art objects: cyberspace is nowadays perceived as a form while decades ago it could not even be imagined. The form of artworks that are related to cyberspace are distinguishable. Digital art does not propose to represent reality, but moves in the border area between reality and fantasy. The interactive possibilities of new technologies can be used in the context of social behavior and offer a kind of in-between space: an "interstice", as referred to by Bourriaud (2002, pp. 70).

Bourriaud (2002) does not perceive the growth of communication techniques and the influence of it on the art as merely positive. New communication techniques would not necessarily lead to more interaction between people and are not free from ideological influence. Art could easily

just be an “illustration” or “gadget”, when only based on new technologies (Bourriaud, 2002, pp. 68). Instead, art should be critical regarding these new developments, and can only be of artistic meaning when it will place the new techniques into the relational sphere: “... reversing the authority of technology in order to make ways of thinking, living and seeing creative” (Bourriaud, 2002, pp. 69). The exhibition space in this regard can function as an experimental area where the relation between interactive technologies and art can be explored. Under the influence of new, interactive technologies, the exhibition space can become a set: visitors are part of the scenery, where they look around, but where they themselves are at the same time the subject of looking. Bourriaud (2002) writes in this respect about a “directors art” (pp. 73). The exhibition space becomes connected to the participation of the visitor. Interactive elements in the exhibition space, such as cameras or video screens, do not only attract the visitor’s attention, but also demand his or her active involvement. This vision shows similarities to the vision of Tomás Saraceno who explains how this installation provokes the physical interaction of visitors: “The undulations produced in the nets by the weight and number of visitors shifts the network, pulling other visitors towards certain points like a vortex as their bodily weights become added together. Your ability to move from point A to B becomes affected as the critical mass deforms space and time” (Saraceno, 2011).

Theorist Stewart Martin (2007) critiques Bourriaud’s emphasis on new communication techniques, especially the Internet, as most influential on art. There would be no distinction made between current technological developments and previous technological developments. Cinematography was one of those developments that impacted the arts, mainly because of movement. Why, he wonders, would current digital developments have a much larger effect on aesthetics, while the impact of the invention of photography and film on the arts is hardly addressed? Bourriaud would fall short in describing the contribution that digitalization has made on the arts, in comparison to, for example, cinematography. Martin (2007) further critiques Bourriaud for not actually intending to outline the influence of new technological developments on the arts, since his interest lies mostly in how technological innovations influence social behaviors. Although I agree that Bourriaud treats the described innovations in the light of the social sphere, I do not see this as a very convincing argument for saying that the author overestimates the impact of new communication and information technologies. I would actually argue that in the past years these developments have grown increasingly and the impact on society and the arts might be even bigger nowadays. In this perspective, I think that art cannot be treated separately from its societal context and it cannot be ignored how digital developments have influenced society, communication and the relational sphere. Bourriaud (2002) describes this by stating that interactivity has become an integral part of society, referring to the ‘experience economy’ to which I will come back in the next chapter. The influence of

interactivity reaches beyond the field of the arts. The raise of innovative technologies would indicate a widespread urge for new forms of social behavior.

1.1.2 The context of the relational form

The influences of new information- and communication techniques are thus not just visible in the arts. There is a global urge for different kinds of contact and exchange. Bourriaud (2002) describes this with the term “transitivity”: one expression evokes a reaction, which in turn causes a reaction etcetera (pp. 26). Transitivity thus refers to the relational aspect of the art world in particular. The art world is not an independent area, but is a sphere of influence. The artistic practice is based on the changeability of it: there is no structural order in art, no defined place for art and not a finished narrative on art. Artists are influenced or inspired by the things that surround them, by society, by contact with others. Different developments in society influence each other and ensure an ongoing process of change in the arts. However, I still wonder why it is that particularly contemporary art is defined as relational, because this transitivity in the art world is not something new. Despite the fact that the Internet, social media or telecommunications were not available during, for example, the Renaissance, one could argue that the form of the artwork has always been connected to society and its developments. Bourriaud (2002, p. 27-28) goes into this question with a brief revisit of historical developments concerning the relational aspect of art. For a long time, art was supposed to bring people into contact with the divine and was strongly connected to religion. From the period of the Renaissance, one can observe a slow development of a different kind of relation between the viewer and the artwork; a relation which was not only directed at the transcendent. Through a new kind of realism on the anatomy of the body and perspective in art, the question on the connection between art and the physical world arose. This shift in focus from the relation between the viewer, the artwork and the deity to the physical world was a very gradual one though. After that development, it took a long time before the relation between audience and art was challenged again; this happened during the so-called period of modernism. The developments in the arts provoked the relation between the art object and the visible world by depicting the individual perception of the world. In contemporary art, there has been yet another shift in how the relation between the audience, the art object and the world manifests itself. The practice of art would nowadays concentrate on the social sphere of interpersonal relations (Bourriaud, 2002). The mere aesthetic quality of an artwork is not sufficiently for valuing it, the “relational character” of the work becomes central (Bourriaud, 2002, pp. 28). Both social behavior has become the subject of the artworks and, at the same time, artist try to evoke discussion about their works, rather than pure attention for the object itself.

1.2 Features of relational art

Just from the theory on relational form, it seems hard to grasp how relational aesthetics are expressed. Bourriaud (2002) therefore described different features that he recognizes in contemporary art with a relational nature. One of the features that is displayed in contemporary art is “symbolic availability” (Bourriaud, 2002, pp. 29). The artwork is not accessible for the audience all the time. It can only be looked at for a specific time or at a specific time. This limited accessibility of the artwork is not just related to the opening hours and the location of the museum or gallery space. The presence of Tomás Saraceno’s *Museo Aero Solar* (2007), for example, was restricted to specific locations at specific times (Saraceno, 2013). This artwork consisted of plastic bags that were tied together and formed a balloon. The balloon travelled to various countries where local people added plastic bags to enlarge the balloon. The artwork was only present at a certain place for a certain time, then it moved to other places where the form of the work kept on transforming. “The art work is thus no longer presented to be consumed within a ‘monumental’ time frame and open for a universal public: rather, it elapses within a factual time, for an audience *summoned* by the artist” (Bourriaud, 2002, p. 29).

Another feature of contemporary art is a certain arbitrariness. With the artwork *On Space Time Foam* (2012), Tomás Saraceno spanned a transparent sail of aerostatic material in a hangar at twenty meters height (Saraceno, 2013). The shape of the material was dependent on the visitors entering the artwork. The arbitrariness comes from the fact that the physical act of the visitors walking on the sail would determine its shape: these movements of the visitors could not be predicted. Visitors that were unfamiliar to each other were joined by their collective action of shaping the artwork. The visitors did not know who they would meet on the artwork or how others would behave, so there was a randomness in the encounter between the visitors. The arbitrary character of the artwork does not display an indifference or apathy of the artist. On the contrary, the relational aspect of the work is connected to this sense of randomness as an expression of critique and subversion. The rules on how to behave in relation to artworks are disrupted by having people entering the artwork, which is often not allowed. This creates a confusing situation. Bourriaud (2002) describes the political vision behind the arbitrariness:

“[T]oday, the emphasis [is] put on external relations as part of an eclectic culture where the artwork stands up to the mill of the “Society of the Spectacle”. Social utopias and revolutionary hopes have given way to everyday micro-utopias and imitative strategies, any stance that is ‘directly’ critical of society is futile, if based on the illusion of a marginality that is nowadays impossible, not to say regressive.” (p. 31)

The arbitrariness of the artwork thus functions as a circumvention of straightforward protest against the (spectacle) society. Contemporary art tries to avoid a central utopian vision or dominant, subversive behavior. This does not mean that the art lacks ideals, but the belief in a single great paradigm is gone. This is exchanged for a vagrant hands-on approach, involving ordinary people.

A third feature is that some contemporary artworks try to evoke social behavior or elevate social behavior into art (Bourriaud, 2002). When Tomás Saraceno invited local people at different places to collectively create the balloon from plastic bags he tried to evoke social behavior. Traditional art is signified by the hand of the artist. In this case the balloon of plastic bags was not an art object because Saraceno made it, but because of the social process in which inhabitants from different areas were involved. The inclusion and collaboration between civilians is an essential part of the artwork. Saraceno (2011) then called it *Museo Air Solar*, transferring the concept of the museum from an enclosed, positioned institute to something that is out in the open, moveable and free to everyone, just like the sun and the air. Saraceno (2011) also questions the relations between people based on site specificity or borders by having the balloon moved from the United Arab Emirates to Italy, to Colombia, to France, to Switzerland, to Albania, to Israel and finally the United States, transcending national and continental boundaries.

The fourth feature that Bourriaud (2002) recognizes in contemporary art, he pertains “operative realism” (pp. 35). The final artwork is not a painting or a sculpture, but the imitation of specific activities or processes as business models or the organization of services. The term operative realism thus refers to the active role of the artist who actually gets involved with producing goods or delivering services in a realistic setting. The intention of the artist is not to gain in-depth knowledge on specific activities or processes but to study how relations are shaped within this industry. Social conventions, etiquettes and the types of relations between colleagues, supervisors and/or clients are the apparatus of the artistic practice. The artist is interested in the expression of social behavior.

“The enemy we have to fight first and foremost is embodied in a social form: it is the spread of the supplier/client relations to every level of human life, from work to dwelling-place by way of all the tacit contracts which define our private life” (Bourriaud, 2002, p. 83).

The final element in contemporary art that Bourriaud (2002) describes, is that of the transformation of the exhibition space. The exhibition space is not just the space where the art is exposed, but the space itself can become an important element in the art, for example as the setting of a performance. The social behavior at a gallery opening can become the topic of the artwork. Visitors are for example involved in the position of the artworks: how can the works best be

perceived? The fact that these kinds of performative elements are live, with the involvement of the audience, means that there is a certain unexpectedness to it.

1.3 The subversive vision of Relational Aesthetics

Multiple theorists have criticized Bourriaud's theory on relational aesthetics. In particular the relation between the social function of the arts and the broader (capitalist) society has captured the attention of critics like Ruitenber (2010), Martin (2007) and Bishop (2004). Relational art, in the perception of Bourriaud (2002), is not simply explained as art with an interactive nature. The idea of relational aesthetics forms a response to different developments in society like globalization, digital technologies and the shift from a goods- to a service-based economy. Martin states that the text of Bourriaud (2007) reads like "... the manifesto for a new political art confronting the service economies of informational capitalism – an art of the multitude. But it can also be read as a naïve mimesis or aestheticisation of novel forms of capitalist exploitation" (pp. 371). The qualification of relational aesthetics as a "naïve mimesis" seems a direct assault on Bourriaud's theory (Martin, 2007, pp. 371). The author mainly misses how relational art can combat the capitalist system. The social or relational nature of art would, according to Bourriaud (2002), indirectly function as a commentary on political and economic systems. Martin (2007) sees this as ambiguous, because redirecting the attention of visitors from the object to the subject, would not directly account for a sphere of subjective sociability. The fact that artists focus on the social practice of art as well, does not mean that they escape from commercialization. Ruitenber (2010) refutes Martin's argumentation, however. She has difficulty with both Martin's and Bourriaud's principle that the economization of the society must be combated: "... those who believe that art's own absorption into capitalist logic means that there is no longer a space for critical possibility, make the mistake of expecting art to remain fully outside the capitalist system" (Ruitenber, 2010, pp. 215). The fact that current artists are not separated from the commercialization of society, mass-communication or capitalism does not mean that they cannot be critical, according to her. Contemporary art has a key function in undermining prevalent paradigms in society. Art can have an emancipating function by suggesting alternative views and creating different kinds of social spaces. I agree with Ruitenber (2010) that art cannot be seen as an independent sphere, but the involvement of artist and the art world with commerce does not mean that the critical function of art is lost. I think that relational art functions, because it seems to directly appeal to the viewers, not just in trying to influence their world view or subjecting them to ideology, but by involving them in an interactive experience. The value of Saraceno's *Museum Air Solar*, for example, was not the fact that it spread a message of equality, because the museum travelled to different areas in the world. The value of the project came from the inclusion of civilians into a project where they were not

subjected to ideological messages, but were appealed to their physical and emotional involvement. The interpersonal sphere of such a project forms a critique in its own, counterbalancing the standardization of commerce and the capitalist system. This interpersonal sphere is not disconnected from the capitalist system: it does not warn participants for possible threats of the capitalist system or tries to convince them what to do, but it invites them to participate. Thereby it transforms from an abstract, conceptual art to the hands-on approach that Bourriaud (2002) describes.

1.4 The involvement of the audience and social behavior

The emergence of the Internet and the “network society” have contributed to collective actions from the public in the art world (Bourriaud, 2002, pp. 80-81). There is a collectivity of leisure that enables a relational approach of the exhibition space. The distant, anonymous visitor transforms into someone familiar: an acquaintance or companion. The sociological process of analysis of the interaction patterns between artwork and visitor forms the basis of the study of relational art. Does the artwork evoke social behavior in the sense of interaction or interpersonal relations, is the central question.”[A]n art taking as its theoretical horizon the realm of human interactions and its social context, rather than the assertion of an independent and private symbolic space” (Bourriaud, 2002, p. 14). The relation between the art object, the viewer and the broader social context is central. The audience contributes to the signification of art through social interaction in the public spaces where the works are exhibited. Art appreciation is situated in a social context driven by interaction. The artist is in this view not the only producer of art and the meaning of the artwork is not fixed. An artwork is a social product and signification takes place in interaction between artwork, artist and public. Bourriaud (2002) explains the concept of interpersonal relations in this context: relational art is art that encourages interaction and encounters. The artwork is not a fixed object; visitors are involved with it through active participation and social exchange contributes to signification to the art. The relations between people that emerge from conversations and discussions are referred to as interpersonal.

The emphasis on direct contact through the arts is, however, not new, writes Claire Bishop (2004). During the 1960s and 1970s the urge for direct interaction with, and inclusion of the public was expressed in the performance arts, the Fluxus movement and the appeal of Joseph Beuys’ social sculpture. The distinction that Bourriaud tries to make between the relational nature of art from the 1990s and that from another period is not logical to her. Bourriaud (2002), however, states that art formerly came from a utopian philosophy, artists nowadays have a more ‘hands-on’ approach. This approach is characterized by local initiatives, a ‘do it yourself’-mentality and an adaptability to the situation. The small scale of these artistic projects has led Bourriaud (2002) to address them with the

term “microtopias” (pp. 13). But Bishop (2004) refutes this claim of an original, new movement in the arts.

“The theoretical underpinnings of this desire to activate the viewer are easy to reel off: Walter Benjamin’s ‘Author as Producer’ (1934), Roland Barthes’s ‘Death of the Author’ and Birth of the reader’ (1968) and—most important for this context—Umberto Eco’s ‘The Open Work (1962)’.” (Bishop, 2004, p. 62)

The idea that art tries to activate the spectator is thus not new or original. The challenge for contemporary art is to study the way in which art activates the spectator and to estimate the quality of the interaction between artwork and spectator, Bishop (2004) states. To gain more insight into the quality of the interaction between artwork and spectator, empirical research is called for.

Bourriaud (2002) writes about the concepts of interaction and interpersonal relationships. He relates these concepts to relational art, in the sense that relation art specifically encourages these social behaviors and relations. But a definition of these terms is lacking, perhaps because the terms are used in so many practical contexts in society. However, because these are key concepts in this research I want to describe them. I focus on the definitions as used in the Blackwell Encyclopedia of Sociology.

1.4.1 Interaction

According to sociologist George Simmel (1971), all interaction is based on exchange. In almost all situations a process of mutual influence between people is recognizable. Even in the case of an instructor simply ordering someone what to do, there is still some form of response from the other person. The instructor is not the only one who is practicing influence, the involved student influences the instructor too, through his responses and behavior. So, in this sense, there is an exchange.

Vom Lehn (2007) distinguishes interaction from other kinds of social behavior, such as group processes or contact through networks. Interaction is described as two or more people who are in each other’s perceptual range and are involved in a social context through their actions and/or conversations (Vom Lehn, 2007). These actions can be gestures, attitudes, body posture and facial expressions. Research has convincingly shown that these types of body language strongly affect the social situation. In a social situation, however, the things that people say to each other are not separated from bodily expressions: both are involved in interactions between people. Someone’s activities thus operate as ‘social stimuli’ to which other people react. These people mostly react in comparable ways, based on shared social norms and conventions. Conversations are an important

element of interaction (Miller, 2007). Conversations often take place during collaborations between people: they take turn in expressing their thoughts and verbally react to each other's comments. A conversation can range from a high level of structure, for example an interview, to a low level of structure where there is no clear division in when someone speaks or listens.

The field of sociology is currently invested with research on interaction where the involved participants are not physically present in the same space: the expression of interaction on the Internet and digital platforms (Vom Lehn, 2007). In my research, however, I will investigate interaction between persons who are actually physically involved together in the space of the exhibition. I will come back to the relation between interaction and space in the chapter on the experience of museum visitors. I will then relate the concept of interaction to the exhibition space. In relation to Bourriaud's relational aesthetics, I will define the concept of interaction as a form of exchange whereby two or more people are in each other's perceptual range and are involved in a social context through both verbal- and nonverbal communication, such as facial expressions, gesturing and physical contact.

1.4.2 Interpersonal relations

In defining the concept of interpersonal relations, mutual influence is key. In case of interdependence, the behaviors of two or more participants influence each other (Orbuch, 2007). The degree of influence or bonding determines the interdependency of the relationship. Participation in joint activities in a group is a form of relational behavior. Interpersonal relations may, however, take different forms, depending on the kind of relationship between the participants. The closer the relationship between people is, the greater the interdependence. The concept of interpersonal relations is focused on a high degree of interdependency between people, such as between a father and a child. This relationship is not volatile or distant, but stable, continuous and intimate. Viewed from this concept, I wonder if people in a public space, during the limited time of a visit to an exhibition, can develop these conversant, personal and interwoven relationships. However, the appropriation of the term 'interpersonal relationships' in sociology has actually been altered to the public domain (Orbuch, 2007). During the 1960s, theorists described interpersonal relations as those conducts, attitudes and emotions that are expressed between people that meet each other for the first time. The focus here lies on the first interactions during the meetings of these people instead of the eventual outcome of any type of lasting relationship. The conducts, attitudes and emotions are broadly described with the term 'attraction'. Later, in the 1980s, sociologists shifted their focus from the possible attraction during people's meeting to the quality of the meeting and the social context in which these meetings take place. Researchers want to know how the initial relation between people influences their wellbeing and what the effect of the social or cultural context is. Specific factors from

this contexts, like cultural norms, circumstances, the presence of other people or the set-up of the environment, can affect the interpersonal relationships (Orbuch, 2007). This perspective can also be translated to the museum context, where the set-up of the exhibition space, the behavioral norms and the presence of other visitors influence how visitors interact with each other. The form of interaction in the museum can thus, as Bourriaud (2002) claims, differ from, for instance, the interaction of people in a shop, in an elevator or in traffic. According to Bourriaud (2002), the exhibition space would evoke specific forms of interpersonal relations, where discussion and conversation are central, because the exhibition space would be an 'interstice' or an in-between space. The standards of everyday life do not apply in this environment.

In this research I will appropriate the concept of interpersonal relations in the public sphere of the museum: the behaviors, attitudes and feelings that are expressed between people that meet each other in the context of the museum. From the perspective of the socio-cultural ecologies I will specifically pay attention to how the context of the museum influences or evokes interpersonal relations. In the next chapter, I will specifically pay attention to the (experience of the) context of the exhibition.

Chapter 2: The experience of visitors in relation to the exhibition space

'Who are museum visitors?' There has been a lot of research regarding this question (Hanquinet 2013). Studies pointed out that museum visitors were often highly educated people that belonged to the middle- and higher social classes in society: a select group. There were nevertheless studies that demonstrated the diversity of the museum public. According to Laurie Hanquinet (2013), there were large differences in the areas of esthetic taste, preference for cultural activities and knowledge on the arts. These differences could not just be traced back to social class, education or ethnicity. She studied the profiles of visitors of modern- and contemporary art museums. These profiles focused on cultural and creative preferences and leisure, instead of social-economical class, age, gender or ethnicity. Hanquinet (2013) thereby provided a more complete picture of the visitors of museums, where next to education, the "omnivorous approach" of the visitors played a part: within the wide offer of cultural activities available, the interest of some visitors was aimed at this large variety, instead of a specific interest for paintings or sculptures (pp. 791). Jocelyn Dodd (1999) reproached museums in her text *Whose museum is it anyway* for focusing too much on a select group of people: white, art loving intellectuals. This group did not represent the diversity of people in society. It could be difficult though for museums to include the many different communities in society: "Many communities are now multicultural, multilingual, multiethnic and multifaith" (Dodd, 1999, p. 132). The common denominator between these communities was that they did not feel that museums could be meaningful to them. It was therefore essential to gain insight in the expectations of visitors and to what extent these expectations are met (Goulding, 2000). Empirical research, however, mainly focused on gathering statistical data and profiles of visitors. The question, 'how do the guests experience their visit to the museum?', was not much covered. This question, however, is central in this research. I will first address previous empirical research into the experiences of museum visitors. I will then treat the experiences of museums visitors related to participation and the museum space.

2.1 Developments in museum studies on visitor experience

There has been a significant rise of interest in the experiences of museum visitors, according to theorists Vom Lehn, Heath and Hindmarch (2001). During the past ten years or so, public access to museums and galleries has been on the political agenda of Europe and North America and private and public grants have been made available. This has led to changes in existing museums as well as the emergence of new museums and galleries. These developments were dedicated to the stimulation of audience participation and sociability. Remarkable enough, however, these developments did not go

in hand in hand with empirical, sociological research on the experiences of the museum public (Vom Lehn et al., 2001). Contemporary research has mainly focused on progressive ways of collection display and the potential societal function of museums. Researchers who did focus on the experiences and behaviors of visitors, did so from the perspective of pedagogy and/or cognitive responses. There were, however, a few exceptions of studies in which social behaviors and experiences of visitors were the theme of empirical research.

Sociologist Volkert Kirchberg (2007) claims that the motivation of visitors to go to art institutions is not just based on structural ideas about the museum institution, nor is it completely independent of these ideas. He distinguishes two models of visitor behavior. One is based on the idea that overarching social expectations greatly affect the individual behavior of the visitors. There are certain ideas in society regarding the behaviors of people; education and socio-economic background are of influence on this. A visit to the museum can or cannot be in accordance with these ideas. There is, for instance, the expectation that highly educated persons, belonging to a higher social class, would visit the museum sooner. In this case, the social expectation that museums are for an elite public of intellectuals, would influence the behavior of people: it would be unlikely that someone without education would visit the museum, because this is not in accordance with the social expectations of his surroundings. This is called the model of “homo sociologicus” (Kirchberg, 2007, pp. 115). The second model, called “homo oeconomicus” focusses on the independency and freedom of thought that the individual visitor has and expresses in small actions (Kirchberg, 2007, pp.115). These actions are not motivated by the norms and conventions from society, but from individual rational thinking processes. Kirchberg (2007) found out that this opposition in practice does not exist, just as the view is in current sociology. The motivation for museum visits can stem from social norms as well as from individual, rational thinking independent of external expectations. The visit to a museum is actually based on multiple motivations. The choice of visitors to go to a museum thus cannot be completely assigned to a socio-economic background; individual motivations are part of the decision-making process as well. This is interesting, I think, because it indicates that museums could also recruit people from less obvious backgrounds; not only the stereotypical white, upper-class intellectual, for example. Visitors from different backgrounds could be addressed in a particular way, for example through more attention for interactivity at the exhibition.

Schreiber and colleagues (2013) studied the involvement and behavior of visitors of the Smithsonian Institute, based on individual preferences. They noticed that visitors did not always have the meaningful experience they longed for. Although there is growing attention for the visitor experience in the context of the museum, there seems to be a gap between the museums understanding of the visitor and the actual wishes of the visitors themselves. Establishing this gap, the

researchers assembled a model of their expectations of visitor behaviors and engagement and then conducted a survey on 390 visitors of the Smithsonian Institute. They predicted the behaviors of 390 visitors, based on their preferences. The five distinguished preferences were: ideas, objects, people, the physical and reflectivity (Schreiber et al., 2013). The survey included general statements about these topics, not specifically related to the museum. A substantial part of these visitors, 109 persons, were also tracked during their visit through the exhibition, to observe their behaviors. Different elements of the museum were related to the categories of preference, for example an exhibition text focusing on the ideas behind the artwork or a video portraying different people. The expectation was that people with a high degree of reflectivity would feel more engaged with the museum and show this in their actions (Schreiber et al., 2013). This was, however, not the case. There was no match between the measured attitudes and beliefs of the visitors and their behavior in the museum.

The use of preconceived categories of preference might thus not be the best way to gain more insight in the behavior and experience of visitors. I will therefore choose for other methods of research, as I will explain in the chapter of 'methods of research'. The results of the research are, however, interesting because the behavior of people in the exhibition space cannot always be predicted, and visitors can be persuaded to pay attention to elements that are not directly related to their sphere of interest. The set-up of the exhibition and the degree of interactivity could potentially, as I believe, be of meaning in attracting people's attention.

Professor of marketing Christina Goulding (2000) did research on the experience of visitors in relation to the environment of the museum. She performed participatory observations among visitors of a city museum, the Birmingham Museum and Art Gallery. The museum presents the collection through a combination of more interactive features such as audio visuals and more traditional ways of representation such as plain texts. Goulding (2000) focused on three different perspectives of offering visitor services. In the "exhibit perspective" the motivation of people to visit to the museum is closely related to the content of the exhibition (Goulding, 2000, pp. 264). The visitors therefore mainly let themselves be guided by the set-up of the exhibition. The second perspective is that of the visitor. In this case, the visitor is well-informed and comes with a clear individual motivation to the museum. Finally, the "setting perspective" has a more holistic approach, combining different influences on the behavior of the visitor: social, psychological and environmental factors (Goulding, 2000, pp. 264). It turned out that this last perspective was most dominant among the visitors. Sociological-cultural-, as well as cognitive, psychological and environmental factors contributed to the experience of the visitor. Sociological-cultural factors were, for example, social interaction between visitors, but also a recognizable theme and coherent presentation of information. Among cognitive factors were the degree of contemplation, reflection and participation. Services such as a museum café offer visitors

the opportunity to rethink their experience and let it settle in. The psychological factors were related to the way in which visitors move through the museum environment; clear signs and simple maps of the museum supported the visitors in finding their way. Environmental factors, finally, had to do with the amount of visitors (crowdedness) and noise. These factors could evoke irritation or anxiety, while the museum environment should have stimulated the comfort of the visitor (Goulding, 2000).

I think that the motivation and preferences of visitors that Vom Lehn and colleagues (2001) and Kirchberg (2007) wrote about influence the experience of the museum visitor. However, they seem to mostly be of significance in the choice of people to visit a museum or to pay attention to a certain element in the collection. The way the exhibition environment is set up might have a more direct influence on the audience during their visit. As Goulding (2000) wrote, there are multiple factors in the way that the environment of the museum is set up that affect the visitor experience. Goulding (2000), bringing in a marketing perspective, is very keen on the services that the museum offers like mapping the space, offering coherent explanations and creating places for the visitor to sit down. However, I am more interested in the way that the art itself is exhibited and the opportunities for visitors to engage with the art. I refer back to Bourriaud (2002) who particularly pays attention to contemporary art as influencing the experience of the visitor. It would not be the services that the museum offers that would have the most impact on the experience of the visitor, but the presentation of modern art, which might evoke a certain sociability. The exhibition can function as a place where visitors can enter into conversations. He considers the exhibition space as a free space "... whose rhythms contrast with those structuring everyday life, and it encourages an inter-human commerce that differs from the "communication zones" that are imposed upon us" (Bourriaud, 2002, pp. 16). He thus distinguishes the exhibition explicitly from all other places in the city, because the places in the city have been thoughtfully designed. Benches are only placed in the park, and not along roads for example, restricting social behavior to assigned areas. The city space is very much planned from a functional perspective and this would limit spontaneous social behavior: the social functions of the city space would become mechanical. In contrast, it would be the art that makes people question things and go into debate, thereby breaking free from the restrictions that the planned city imposes on them. I therefore think that Bourriaud (2002) would disagree with Goulding (2000) about the influence of the services of the museum on the visitor experience. Bourriaud (2002) would probably consider maps of the route through the museum, coherent explanations on the artwork and specifically placed benches as forms of unnecessary interference: the artworks should evoke the social behavior, instead of a carefully designed benches or a 'trendy' café. I think, however, that it might be a naïve standpoint to consider the exhibition as a 'free space' where none of the systems or designed elements from the city are present. The elements that Goulding (2000) refers to are intentionally

designed for the space of the museum, even more so the design of the building and the whole environment are thought out: a special entrance to the museum, separate spaces to lock down belongings, registers for tickets, special routes through the museum, attendants that monitor the behavior of visitors, special areas to sit down, etcetera. I believe that the design of the exhibition environment should be dedicated to the involvement of visitors with the art: accessibility to and interaction with the artwork should be central to the visitor's experience.

2.2 The experience of the exhibition space

In further analyzing how the exhibition environment could influence the experience of the visitor, I turn to the influential essay *Walking in the City* by philosopher Michel de Certeau (2007). In this essay, he reacts on the changes of the metropolitan city. Just like Bourriaud (2002), the rise of skyscrapers and the thoughtful design of cities are mentioned by De Certeau (2007) as elements that transformed the city. The places in a city are abstract, planned out by architects and urban planners. In this sense, De Certeau (2007) wrote about a "concept city" (pp. 158). The architects came up with systems like road signs, traffic lights and separations between pedestrians and other kinds of traffic. These planned places created a sense of alienation and distance, they were created from the distant offices up high in the skyscrapers. These skyscrapers offered a distant view on the city: a helicopter-perspective. From high offices up in these skyscrapers, architects, designers and decision-makers viewed the crowd 'down below', while making plans for designing the public space. The people below, "*Wandersmänner*" as De Certeau (2007, pp. 158) calls them, walked along the lines of streets and corners: seen from above it was as if these people walked an urban text or map. The people experienced the city through their activity of walking. In contrast to Bourriaud's view (2002), however, the people walking transformed the city from an abstract and distant urban place into an inhabited space, according to De Certeau (2007). The *Wandersmänner* were not just imposed on the spatial planning from great architects, limiting them in their social behavior, the act of walking was a means of giving meaning themselves. A place only became inhabited as a space when people used it. De Certeau (2007) therefore came up with the concept of "lived space": people assigned meaning to a space by employing spatial tactics like walking, sitting, running or climbing (pp. 161). These tactics were a way of territorializing places that would otherwise just be conceptual. Specifically the repetition of the behaviors helped the walkers to free themselves of the alienation of a place and create a sense of 'familiarity'.

“These practices of space refer to a specific form of operations (‘ways of operating’), to ‘another spatiality’ (an anthropological, poetic and mythic experience of space), and to an opaque and blind mobility characteristic of the bustling city. A migrational, or metaphorical, city thus slips into the clear text of the planned and readable city.” (De Certeau, 2007, p. 158)

It might seem odd to compare the visitors of an exhibition to the walkers in the city. When the visitors walk through the exhibition, they are not being watched from a higher perspective. The visitors also cannot walk the lines of a map that is only visible from above. In short, there is no center of optical knowledge as is the case with the city where high skyscrapers are overlooking the area. However, there are usually attendants to maintain an overview on the exhibition and there is often a specific route mapped out for the visitors. The exhibition area is in a sense a created or planned place. An architect has designed the building: creating separate areas for visitors to enter, to lock their coats and belongings, to have a drink or buy a souvenir. A curator has chosen the artworks and the way these works are arranged. But the workers of the museum thought about how visitors should walk through the exhibition as well, which objects can or cannot be touched, the distance between the art object and the spectator, whether photographs can be taken, etcetera. It is not my intention to just compare the space of the exhibition to the space of the city. I am interested in De Certeau’s (2007) model of spatial appropriation and believe that there are comparisons between the way people in the city relate to space and how visitors in the museum relate to space. The employment of spatial tactics as a way to familiarize oneself with a place might not be exclusive to the city but to other designed areas as well. Visitors might relate to the museum environment more when offered the chance to physically participate in this environment, either by touching the art, entering an installation or breaking with social codes such as being quiet or walking slowly. The artwork, in this case, is not a fixed product, nor is the exhibition a fixed environment. The physical participation could stimulate visitors to become more involved with the art, as Bourriaud (2002) envisions.

Architect and writer Neil Leach (2002) extends De Certeau’s theory. According to him, the senses play an important role in how people experience space. There is often a lot of attention for viewing a space, this is especially the case with visual art exhibition. People do, however, not only take in a space by viewing it, but also through their touch, hearing and sense of smell. The experience is multi-sensory. The repetition of visiting a certain place stimulates a sense of familiarity: the sensory experiences are stored in memory. The experience of a place is, as De Certeau (2007) also claimed, not just one where the visitor passively absorbs the sensory impressions. The visitor themselves give meaning to a place through their behaviors and habits. The appropriation of a place comes from the (repetitive) actions of a visitor, rather than the attention he or she gives to the environment. In the experience of a space, it is not just the way the environment looks that is important, but rather the

involvement that the visitor of that environment has with it: the way he or she behaves, someone's activities or the spatial tactics that are used.

Artist and architect Tomás Saraceno is known for his extraordinary use of the exhibition space. In the exhibition *In Orbit*, as the name already suggests, Saraceno explores a new kind of space, partly detached from the ground in the form of a physical accessible installation. The installation consists of a net structure that is constructed high up in the museum building. The accessibility of this installation could possibly evoke the multisensory experience of space that Leach (2002) wrote about. Saraceno (2011) explains: "We begin to share responsibility; we witness how our behavior affects the behavior of others. How this network of interrelatedness stems from a single string, forming the net you are walking on [...]. The butterfly effect on the shared space ..." (pp. 43). The architect refers to the "butterfly-effect" of his installation, where the physical involvement of one visitor could influence the movement of another visitor, because the net structure is reactive (Saraceno, 2011, pp. 43). Saraceno envisions an increased sensibility among visitors.

2.3 Participation of museum visitors

There is growing attention for the visitor experience, as established before. Part of this interest comes from the idea that visitors should be more involved during their museum visit. Nakajima (2012) writes about the role of the visitor. He or she is not just someone who buys a ticket for an exhibition, walks around and views the artworks in a consumer modus. The public is involved, as Bourriaud also concluded, in giving meaning to the artwork. Art comes to live when it is exhibited; the interactive element that the museum or gallery has, is lacking in the deprived space of the artist's studio. Nakajima (2012) therefore proposes a different view on the role of the public. The author uses the term "prosumer" to indicate that the visitor has a role in both consuming art and producing it (Nakajima, 2012, pp. 550). I do not understand this term in the sense of community art, where participants truly create an artwork together, under the guidance of an artist. I will focus on the blurring borders between artist and public in the sense that Bourriaud (2002) writes about it. Art is not a fixed object, but a social product: a collective activity. The artwork does not consist independently of the public arena or the social context. People assign meaning to an artwork by asking questions, having conversations or through physical participation. There is a sense of co-creation: both the context of the museum, the curators, artist and the public through their social behavior contribute to the signification and creation of the artwork.

Pine and Gilmore (2011) take the idea of involving visitors with the exhibition one step further. They notice that service has become a major part of the current economy. Even companies that sell tangible products try to do this in a way that appeals to the experience of the consumer. A coffee from

Nespresso, for example, is no simple cup of coffee. Through advertising the company tries to convince people that drinking this coffee means having a special moment. The feeling that accompanies the product is central. The experience economy is not just a sales ploy, but it is way to stimulate the involvement of clients, visitors or audiences in different areas. According to Pine and Gilmore (2011) museums should pay more attention to the experience of the visitor. They argue that a visit to the museum does not only revolve around viewing an artwork. The visit should be a complete experience, where all senses of the visitor are stimulated. In this way a visit to the museum can become a memorable experience that engages the visitor personally. A memorable experience is related to two elements, according to Pine and Gilmore (2011). The first element is the degree of visitor participation, ranging from highly active to passive. A visitor is more passively present when he or she is just an observer in the exhibition. A more active participation comes from the physical involvement of the visitor in the exhibition, he or she is involved in an activity. The second element is the relation between visitor and environment, ranging from absorption to immersion. In case of absorption the visitor pays attention to the experience at the exhibition, but from a distance. He or she does not feel part of the exhibition. In case of immersion the visitor becomes part of the experience, the environment offers a total experience, stimulating the senses of the visitor. This environment can be the architecture of the museum, but also the display of the artworks or the way that visitors are involved with the artworks, for example through an audio tour or an *iPad* with multimedia information (2011).

In this research, I will use the term museum visitor from the perspective of Nakajima (2012): the person visiting the museum that is both there as consumer and producer of meaning. In this definition, the museum is not a fixed institute, but a place where visitors actively assign meaning to art through physical participation and social behavior, instead of just distantly viewing the art.

2.4 The interactive exhibition

All behaviors and experiences of museum visitors are situated in the context of the museum. The way in which this context is shaped is specific to a museum. Goulding (2000) provides an overview of the studies on the relation between the context of the museum and the experience of the visitor. The context in which the visitor has his or her experience consists of the architecture and shape of the museum building, the division of spaces, the way that spaces are decorated and the route that the visitors walk through the museum. The way the museum is set up influences the perception of the visitor (2000). In recent studies, the visitor is no longer perceived as someone that just passively takes in the museum environment. He or she should be approached as an active participant of the museum, an user (Goulding, 2000). This has consequences for the set-up of the museum space. Characteristic for the

context of modern museums is the intersection of amusement and contemplation, so-called “infotainment” (Goulding, 2000, pp. 264). Despite the introduction of the term infotainment and new developments in the (interactive) design of museum spaces, there is, however, little attention for how this design influences the visitor in terms of his or her emotional- and physical involvement and assignment of meaning (2000). Therefore I think that this study can contribute to more insight between the relation of the degree of (physical) participation of the museum visitor and the museum space.

Pine & Gilmore (2011) emphasize the importance of an interactive design of museum spaces in involving visitors. Just like Goulding (2000), they believe that the museum shop where visitors can buy souvenirs, the museum café where visitors can have a drink and interactive displays that are engaging visitors’ attention are examples of how museums can offer visitors a more complete experience. This would be necessary because museums nowadays have to compete with many forms of leisure, which often have a highly interactive nature. Pine & Gilmore (2011) do not only emphasize the amusement of the interactive museum environment. The educational and aesthetic function of the museum are still priorities in the arrangement of the exhibition space as well. The experience of the visitor would be influenced by both the degree of visitor participation, as Nakajima (2012) wrote about, and the relation between the visitor and its environment.

Despite the fact that Pine and Gilmore (2011) state that they do not want to turn the museum into an amusement park, there is the fear that the stimulation of fantasy, enjoyment and amusement will be at the expense of a more rational approach with reasoning and reflection (Goulding, 2000). The emphasis on experience and spectacle would rule out a more contemplative view on art. This fear might be grounded, because through the concept of ‘infotainment’ there are increasing similarities between the museum and the amusement park (Balloffet, Courvoisier & Lagier, 2014). There would be no marked contrast between art on the one hand and amusement on the other. Because of new technologies, museums have many potential ways of exhibiting art. They can choose for a more pedagogic approach focusing on information around the art, an interactive approach where participation is central, a more or less static approach with a focus on the artwork itself, or an approach in which the spectacle and the amusement are central. Museum professionals fear that the sensorial experiences that interactive environments offer will be at the expense of the reflective attitude of visitors (Balloffet et al., 2014). They will not be stimulated to ask questions or discuss the signification of the artwork. The issue of signification and reflexivity is therefore important to treat in this research, because it can give an indication of how visitors experience an interactive exhibition environment: as pure amusement or as the meaningful experience that Bourriaud (2002) writes about.

Bourriaud (2002) would oppose the developments of the exhibition space as Pine & Gilmore and Goulding write about it and agree with museum professionals in that it would be at the cost of

reflection and discussion on the meaning of art. I refer back to Bourriaud's quotation in the first chapter on the "society of the spectacle" (2002, pp. 31). The author sees a particular subversive role for the arts in reflecting on this society. The interactive elements that Pine and Gilmore describe would distract the visitor's attention from the actual object: the artwork. The exhibition space would not be a place for amusement, because amusement lacks a critical function. The opposite is the case; amusement is part of the service-based industry that Bourriaud (2002) refutes. The author stated that he wanted to fight the spread of supplier-client relations. This type of relations would dominate public and private life without citizens being aware of it. The idea of relational aesthetics forms an alternative for the service economy, by emphasizing the spontaneity and arbitrariness of social behavior and critiquing the monitored relational sphere of the service economy. Therefore, the interactive character of an exhibition would only be of value when it is in service of the social sphere free from supplier-client relations.

I agree with Bourriaud (2002) that the introduction of amusement into the exhibition space could mean a loss of reflectivity. I do believe that interactivity could be of value in the exhibition space, but like Bourriaud, I see the value of interactivity in evoking questions and stimulating conversations. This function differs from using interactivity for amusement purposes or infotainment. But I differ from Bourriaud (2002) in the sense that exhibition spaces represent an interstice or in-between space. I do not believe that the systems of city life do not count in the exhibition space. Actually quite the contrary, the systems Goulding (2000) described of mapping the route through the exhibition and creating specific places for people to interact, are examples of systems that do direct the visitors' behavior and create a specific museum culture with its own standards. Interactivity in the museum space should function as a way to break with these standards and systems and create the free social sphere that Bourriaud (2002) described. The physical participation of visitors that is invited by interactivity could be a way of visitors' assigning meaning themselves to the context of the museum environment. I therefore see the possibilities for physical interaction as a means to inhabit the exhibition space, in the way De Certeau (2007) described. The inhabitation of the exhibition through physical activities could turn it into a lived space. The visitor is then no longer a passive consumer of the exhibition, but turns into the active 'prosumer' that Nakajima (2012) described: assigning meaning to the art and the exhibitions through their participation.

Chapter 3: Methodology

In this chapter, I will outline the methodological justification of my research. I will define the research question and sub-questions and describe how I will answer these questions. Then, I will discuss the methods of research, the research units, the period of research, the type of data, operationalization of the variables and the processing and analysis of the data. I will end this chapter with my expectations of the outcomes of the research.

3.1 Research question and sub-questions

Having worked out the theoretical framework of the research, I will now describe my research question and sub-questions. The theoretical concepts as treated before, will be leading in the formulation of my sub-questions. My research question is: *How do the possibilities for interaction with the artwork(s) at the exhibitions In Orbit and Avant Garde in motion affect the social behaviors and experience of museum visitors?* To answer this question, I have formulated three sub-questions in which the concepts of the exhibition space, relational aesthetics and social behavior, and the experience of museum visitors are sequentially related to empirical data. In addition, the first sub-question is aimed at providing a description of the exhibitions in light of the theory.

1. *How does the use of space in the exhibitions In Orbit and Avant Garde in motion relate to the concept of relational aesthetics?*

In order to get more insight in the relation between social behaviors and experiences of visitors and the interaction with the artworks at the exhibitions, it is necessary to map out the exhibition spaces. I want to analyze the arrangement of the exhibitions through my observation of the exhibition spaces of *Avant Garde in motion* and *In Orbit*. After having mapped out the spatial elements of both exhibition spaces, I will relate my findings to the theoretical framework. This gives me a focus for the participatory observations and the interviews. In chapter 4 this sub-question will be addressed.

2. *Which elements of the exhibitions In Orbit and Avant Garde in motion do or do not evoke social behaviors among visitors and how is this expressed?*

I formulated this sub-question to gain more insight in the interaction between visitor, artwork and exhibition space. Using the concepts of interpersonal relations and interaction as treated in my theoretical framework, I observed the social behavior of visitors. This will be covered in chapter 5.

3. *How do the different elements of the exhibitions In Orbit and Avant Garde in motion affect the experience of visitors?*

In addition to gaining more insight in the social behaviors of visitors, I also wanted to gain insight in the experiences visitors. I conducted interviews with visitors about their experiences in relation to the possibilities for interaction with the art at both exhibitions. This will be covered in chapter 6.

3.2 Methods of research

My aim for this research is to gain an in-depth insight in how the possibilities for interaction with the artwork(s) at the Saraceno- and Calder exhibitions influence the social behaviors and experience of museum visitors. It is not my intention to prove a causal relation between interactivity of the art and the behavior of visitors, but to get a close view on the behaviors and experience of museum visitors. The nature of my research is thereby qualitative, although part of my research data will be processed in a quantitative way, on which I will come back. In order to get insight in the behaviors and experiences of museum visitors, I have conducted my research at the location of the museum, as an ethnographic research. I used multiple research methods to gain insight in how the social behavior of visitors was expressed in relation to the context of the exhibition space, and how the visitors experienced the art within this context (Hart, 2005). First, I conducted participatory observations. Because the behaviors of museum visitors were very much context-bound, and this context is of specific interest for the research, I focused my first sub-question on the description of this context. I thus had two aims for the observations. First I wanted to map out how the exhibition spaces were arranged and which opportunities to interact with the artwork(s) were offered. Then, to answer the second sub-question, I studied the social behaviors of visitors in relation to the set-up of the exhibition. The research units in case of the observations of the museum space were the exhibition spaces of *In Orbit* and *Avant Garde in motion*. For the third sub-question, I conducted interviews about the experiences of visitors. The research units in this case were visitors of the exhibitions *In Orbit* and *Avant Garde in motion*.

Key for ethnographic research is that the subjects (the visitors) are studied in their own environment; the exhibition setting of *In Orbit* and *Avant Garde in motion* (Verschuren & Doorewaard 2007). It was therefore my intention to observe the visitors, as much as possible, with their natural behavior in the exhibition space, without interference. I therefore conducted covered observations, to avoid observation-bias (Baarda, De Goede & Teunissen, 2005). I was as researcher a participant by walking through the exhibition space. I kept my notes inside an art magazine, as an unobtrusive measure. The method of observation was suitable for my research because I was interested in the behaviors of visitors. Visitors might not always be aware of their actions while being at the exhibition, interviewing could therefore have given me a less accurate view on the social behaviors of visitors (Baarda et al., 2005). I was interested in very specific types of behaviors of the visitors: their (physical)

activities, facial expressions, verbal- and nonverbal communication with other visitors. In case of the verbal communication, I was not interested in the content of the conversations of visitors, this would also ethically not be appropriate, but I wanted to know whether conversations took place. I wanted to relate these observations of the behaviors of visitors to the artwork that the visitors were involved with. Because of the clear focus on interactional behavior, structured observations were most suitable (Baarda et al., 2005). I used a predetermined observation scheme to capture the behaviors of the visitors, based on identification codes for the different types of behaviors.

My second research method consisted of semi-structured interviews (Hart, 2005). To answer the third sub-question I studied the experiences of visitors in relation to the set-up of the exhibition. Because I wanted to gain a close view on the personal experiences of visitors, interviews were the most suitable method. The research units were in this case the visitors of the exhibitions *In Orbit* and *Avant Garde in motion*. By means of a topic list and some pre-conceived questions, I interviewed the visitors about their experiences, with the possibility to further inquire on raised subjects. The interviews were conducted in English, because my German was not of high standard and both exhibitions were located in the German city of Dusseldorf. The interviews took place in the museum. The language was a potential barrier for visitors participating in an interview in a language which was not their native tongue. Since I was interested in conversations among visitors too, I wanted to address visitors that came to the exhibition with one or a few companions. Therefore, I wanted to conduct the interviews not only with solo visitors, but with one or two of their companions as well, in order to attract more visitors to participate in the interview and lower the potential language barrier. It was not my intention to do group interviews with more than three interviewees. Companions in this small setting could help translate difficult expressions and complement each other; in reaction to the answers of the companion new responses could come up. A possible disadvantage of this approach was that interviewees could be influenced by the responses of their companion and gave socially desirable answers (Baarda et al., 2005). I asked the interviewees permission to audiotape the interviews.

So, to answer my three sub-questions I conducted both participatory observations and in-depth interviews. Again, my intention for studying the behaviors and experiences of visitors of both the Saraceno- and Calder exhibition was not to generalize or prove causal relations, but to get a close view on these specific cases.

3.2.1 Research units

In the description of the methods of research I already referred to the research units. In case of the first sub-question about the arrangement of the exhibition space, the exhibition spaces of *In Orbit* and

Avant Garde in motion were the research units. For the second sub-question on the social behaviors of visitors, the visitors of the exhibition were the research units. For the final question on the experiences of visitors, the visitors of the exhibition were again the research units.

Here, I will address the sampling of the research units and the size of the research population, in case of the participatory observations and interviews. I performed a selective sample, it was not realistic or feasible to interview and observe all visitors of both exhibitions. In case of an ethnographic research it is also not required to study all visitors, because I strived to gain an in-depth insight into their experience (Hart, 2005). For the participatory observations, I wanted to study the behaviors of individual visitors for a time frame of fifteen minutes. I figured that within this time frame, visitors could spend time with different artworks and could display different types of behaviors. A longer time frame could run the risk of obtrusion. Per exhibition I wanted to observe sixteen visitors, leading to four hours of observation per exhibition. There were a few criteria on which I wanted to select visitors. First, I wanted to select visitors with a German background. Since the observations were covered this might be difficult to determine, but I could derive it from the spoken language. A second criterion was the number of companions. I wanted a similar spread of visitors travelling solo or with one to four companions. Groups of visitors travelling with more than four companions could needlessly complicate the observations, due to group processes that might have influenced the behaviors of the visitors. The third criterion was age; I wanted to select only adult visitors from twenty years and older. I strived for a similar spread of ages between the Saraceno and Calder exhibition. Age could be a difficult criterion because of the covered observations, therefore I gave an estimation of the age. Hence, the sample in the case of the observations was purposeful (Hart, 2005).

I wanted to conduct eight to ten semi-structured interviews per exhibition. The interviewees were not predetermined in advance. While being at the exhibition, I approached visitors to participate in the interviews. Time could be a potential barrier for visitors to participate, potentially having other plans or not being interested in participation. I expected that a time frame of twenty to thirty minutes could be doable for visitors, while at the same time it gave me the opportunity to address the different topics and inquire on raised issues, gaining a close view on the experience of the visitor. Since the scope of the research population was quite small, with eight to ten interviews per exhibition, I wanted to try to narrow down the variables of the interviewees through select sampling. This way I hoped to avoid that outcomes of the interviews could be assigned to other factors differing between the sub-samples. The selection of visitors was aimed at German people, because visitors with different cultural backgrounds might have other customs and standards in terms of social behavior to which the outcomes of the interviews could be assigned. The other criteria was that visitors were female, aged 20-30. I used this criteria for homogeneity, but also because I expected that, because of the physical

challenges that the installation *In Orbit* contained, the exhibition could, in all probability, allure a younger public. Further I strived towards a similar spread of visitors that came to the exhibition individually or with one to four companions. Groups of visitors with more than four companions could be quite complex, because variables could be attributed to group processes that influenced the behavior of visitors. In this case the sampling procedure was based on convenience: I selected visitors that met the criteria of a small group of visitors (20-30 years old German women) that were part of the larger population of visitors, who were not all of the same age category, gender or nationality (Hart, 2005).

3.2.2 Period of research

The exhibitions *In Orbit* and *Avant Garde in motion* were both temporary exhibitions. The Calder exhibition took place from September 7, 2013 till January 26, 2014. The Saraceno exhibition took place from June 22, 2013 and continues to run till the autumn of 2014 (no exact date set). Especially in the case of the Calder exhibition, which ended in January, the period of research was bound. The research on this exhibition took place halfway till the end of January. The research period for the Saraceno exhibition was less restrained, because the exhibition lasted for a longer period of time. Nevertheless, I hoped to avoid seasonal influences on present visitors that might influence the outcomes. Therefore I strived to conduct the observations and interviews for the Saraceno exhibition between February and March. In case of both exhibitions I stayed in Dusseldorf for a couple of days to do the research.

3.2.3 Type of data and processing and analysis of the data

I wanted to collect three types of data. First, the visual characteristics of the exhibition space. These characteristics could be derived from the theoretical framework in chapter 2: the type of art displayed, the arrangement of the exhibition space and the interactivity of the art. The second type of data was aimed at the social behaviors of visitors, related to the concept of interaction and interpersonal relations, as discussed in chapter 1. In case of the participatory observations I distinguished variables: the artwork, the position of the visitor in relation to the artwork and the behavior of the visitor; divided into activity, facial expression, verbal interaction and nonverbal interaction. The variables aimed at the behavior of visitors were divided into different attributes. I wrote down the behaviors of visitors in relation to the different artworks with identification codes in an observation scheme. For the variable facial expression, for example, I distinguished the attributes 'serious', 'smiling' and 'laughing'. I respectively assigned the attributes with the values or codes 'one', 'two' and 'three'. This measurement took place on a nominal level (Hart, 2005). There was no distinction in importance or further signification to these values. These schemes were processed into

the quantitative data program *SPSS*. Although my method of research was thus the ethnographic participatory observation method, I wanted to process these observations in a quantitative way. This allowed me to analyze possible patterns and relations between the observations. The predefined observation scheme and identification codes provided the opportunity for this type of data analysis. Using *SPSS* I wanted to execute different analyses to gain an overview of the most common behaviors among visitors in relation to different artworks and possible relations between the different variables. I used a hierarchic method to compare the behavior of visitors from both exhibitions (Verschuren & Doorewaard, 2007). This means that I executed the research in two phases; first, I studied the results of both exhibitions, independently from each other. Then, I did a comparative analysis where I wanted to look for similarities and differences between the behaviors of visitors from both exhibitions.

The third type of data was aimed at the experience of visitors, related to the physical and emotional involvement of the visitor, the enticement of questions and signification to the art and the perception of the exhibition space. I first transcribed the conducted interviews. These transcriptions were processed through the qualitative data analysis program *ATLAS.ti*. I used open coding to process the interviews, as a structural analysis (Hart, 2005). The coding of the interviews gave me the opportunity to analyze the results categorically for similarities and differences between the answers of the interviewees and relate the answers to the research questions.

3.3 Expectations

My expectations regarding the results of the research were based on the theoretical framework. The physical accessibility of Saraceno's installation, which was due to the use of new techniques, allowed visitors to enter a net structure that was constructed high up in the museum building, as a space in the air. I expected that the exhibition space, in this regard functioned as the experimental area that Bourriaud (2002) wrote about, where under the influence of new, interactive technologies the exhibition space could become a set. I foresaw that visitors became part of the setting of the installation through their physical appropriation of it. The experimental nature of the installation and the close physical participation of visitors were expected to evoke more emotional reactions of the visitors. I imagined that visitors of *In Orbit* experienced a wider range of feelings and emotions while being high up in the installation, with a great height under them, than while plainly walking along the sculptures and mobiles at *Avant Garde in motion*. In addition, I expected that there was a relation between the physical accessibility of the exhibition *In Orbit* and social interaction. The physical involvement of visitors at *In Orbit* was, not just individual, through the tension of the net visitors mutually influenced each other through their movement, turning the movement on the installation into a social- and collective activity. I foresaw that the reactive nature of the net would evoke

interaction: visitors showed more social behavior compared to the exhibition *Avant Garde in motion*, where the physical accessibility was limited. I therefore expected, in line with Bourriaud (2002), that visitors of *In Orbit* were stimulated to enter into interpersonal relations.

Michel de Certeau (2007) stated that a place gets inhabited by people as a 'lived space' when they employ spatial tactics as walking, sitting, climbing and touching. The exhibition *In Orbit* related to space in a different way than *Avant Garde in Motion*. People could sit down in the installation of Tomás Saraceno, walk on it and touch it. This seemed at odds with conventions that often apply in visual art exhibitions. I therefore expected that visitors of *Avant Garde in motion* could have a more consuming role, in which viewing was central. Nakajima (2012) opposed this role against a more active form of participation, referred to as prosumption. Through the employment of spatial tactics I expected that visitors could take on a presuming role at *In Orbit*: not only viewing the artwork, but also discussing it, touching it, becoming physically involved, and thereby giving meaning to the installation. I expected that visitors, because of their involvement, did not just absorb the ideas from the artist about the installation, nor the information provided by the museum. I foresaw them reflecting on their subjective experience, asking questions, and discussing what the installation personally meant to them, thereby taking in the critical stance that Bourriaud (2002) and Nakajima (2012) wrote about. I expected that the breaking with museum conventions, close physical participation and social exchange with other visitors, could contribute to a more active process of assigning meaning to the installation.

Chapter 4: The set-up of the exhibition space

The exhibitions *Avant Garde in motion* and *In Orbit* were both organized by the German museum *Kunstsammlung NRW* in Düsseldorf. This contemporary art museum has three locations in the city (*Kunstsammlung NRW*, 2014). *Avant Garde in motion* was set at the building *K20* at the Grabbeplatz near the city center. This building was the first location of the museum and specifically built for the purpose, in 1986. It was designed by the Danish architects *Dissing + Weiting*. *K20* has a modern look, with a granite exterior and enrolling walls. *In Orbit* is set at the building *K21* in the *Ständehaus am Kaiserteich*. This second location opened its doors in 2002 and was located a bit over a kilometer from the first building, at the other end of the city center. The building of *K21* looks classical and stems from 1880 (*Kunstsammlung NRW*, 2014). It used to house the Parliament of the Federal State of North Rhine-Westphalia. On top of the building a modern glazed dome roof has been constructed, by the German architects *Kiessler + Partner*.

In this chapter, the results of the observations of the exhibition space will be treated. I will relate the set-up of the exhibition to the literature on the experience of the exhibition space as covered in chapter 2; the experience of museum visitors. My observations focused on three aspects, derived from the literature: the arrangement of the exhibition space, the type of artworks displayed, and how possible museum conventions were made visible in the exhibition space. First, I will describe the set-up of the exhibition space at the Calder exhibition, followed by the Saraceno exhibition.

4.1 The set-up of the exhibition space of *Avant Garde in motion*

The exhibition *Avant Garde in motion* displayed an overview of the artworks of Alexander Calder (1898-1976), with different types of artworks (*Kunstsammlung NRW*, 2014). The exhibition was set up in two spacious halls of the *K20* building. The first space was called the *Kleehalle* and had a long elongated shape. It covered an area of 2000 m². The walls were painted white. The second room, the *Grabbehalle*, had a wide shape and was a bit smaller in size. The room had a surface of 600m², the hall was quite high; approximately fifteen meters. The two rooms both adjoined the central hall of the *K20* building. In the central hall the entrance to the museum was housed, there were some benches placed, providing visitors the opportunity to sit down, at the back cash registers were located, next to a wardrobe, lockers and toilets. The two exhibition spaces were located opposite each other, with the central hall in the middle. Visitors could walk in and out of the halls, there were no doors closing off the spaces. At the entrances between the rooms, attendants were posted: photographing, stepping on the platforms, touching the art, and blowing at the art were not allowed.

The exhibition displayed different types of artworks. The Calder Foundation (2014) distinguished hanging mobiles, standing mobiles, monumental sculptures, stabiles, wire sculptures,

wall sculptures, toys and oil paintings. Observing the artworks in the exhibition, however, it was quite difficult to make a clear distinction between the different kinds of sculptures. Perhaps mobile sculptures could be distinguished because of the specific balance with threads and wires and loose elements. But, most of the sculptures of Calder were characterized by the relation of the different shaped elements of the sculpture. I therefore limited the analysis to three types of artworks from Calder: sculptures, mobiles and painting. To make a distinction between sculptures and mobiles, which are both three-dimensional art objects, I used the following definition: sculptures are three-dimensional artworks that could be made in different ways and with different materials (Clarke & Clarke, 2013). Mobiles are three-dimensional as well, but I referred to them as those type of works that are hanging in the air and could be put into motion because of their specific construction, which is marked by the use of wires (Clarke & Clarke, 2013).¹ Artworks that could be put into motion, that reacted to the visitor or that appeared to move could all be gathered under the general term 'kinetic arts'. Picture 4.1 shows in the front a sculpture, placed on the ground with moveable elements. It gives an insight in the arrangement of the exhibition space *Kleehalle* too.

Picture 4.1 Art of Alexander Calder at the Kleehalle K20 Kunstsammlung NRW.



¹ Artist Marcel Duchamp actually introduced the term 'mobile' in the art to describe the specific artworks of Alexander Calder (Clarke & Clarke, 2013).

4.1.1 Exhibition space *Kleehalle*

The *Kleehalle* was the largest of the two exhibition spaces. The walls were white and on the floor lay anthracite colored tiles. Divided over the white ceiling, white spots were constructed: lighting the whole exhibition area. Different corners were created from white cross pieces, and white platforms were placed on the floor, as shown in picture 4.2. The low, white platforms of approximately 15 centimeters high, on which sculptures were placed or where mobiles hung above, functioned as a separation between the displayed artwork and the public. The Calder Foundation that owned most of the artworks required the museum to take measures where a distance of at least 90 centimeters remained free around the artworks (Dr. Susanne Meyer-Büser, personal communication, January 21, 2014). The audience was thus distanced not by warning signs, barrier tapes or fencing, but by the subtle border of a platform. I describe the platform as a subtle border, because there were no signs which stated that the artworks could not be touched or that people could not step on the platform. But the platforms directed the route visitors took through the exhibition space.

Picture 4.2 Platforms on the floor and part of the walkway at the Kleehalle K20 Kunstsammlung NRW



Besides the platforms, there was another element in the space that directed visitors in their movement. In the middle of the space an elevated, small walkway had been created, from which visitors could gain a different perspective on the exhibition space. The position of the visitor, in terms of height, was comparable to the position of the mobiles that were hanging from the ceiling. The walkway was approximately fifteen to twenty meters long, crossing a large part of the exhibition space, thereby also functioning as a wall, as shown in pictures 4.2 and 4.3. Visitors had to walk around the walkway to see the whole exhibition. The steps and floor of the walkway were covered with black

carpet, while the sides were white, blending in with the whiteness of the ceiling, walls, platforms and cross pieces. Two black benches were placed along both sides of the walkway, at the back. Picture 4.3 shows the walkway, viewed from above, and the sight from the walkway on one of the mobiles on eye level.

Picture 4.3 Walkway in exhibition *Avant Garde in motion* – Klee Halle K20 Kunstsammlung NRW



Figure 4.1 gives an indication of the set-up of the exhibition space, however, it is not on scale, and therefore no exact representation. Different elements in the figure have been assigned a number. I will address these different elements and artworks shortly. The long rectangle shape in the middle of the picture represents the walkway. From the figure, it becomes evident how this influenced the route of visitors through the exhibition space, they were forced to walk in an 'U-shape'. The artworks were mostly chronologically arranged in the *Klee Halle*, with the exception of some black and white sculptures and mobiles at the back of the hall. They were assembled together on, or above a large platform, because of their color composition. The (wire) sculptures and paintings near the entrance were constructed during Calder's early work as an artist, round the 1920s and 1930s, as shown in picture 4.4. The light on the steel wire portraits (shown at the right of the picture) created a play of shadows on the white wall. There were a few smaller sculptures presented on pedestals. On the opposite wall, texts were displayed, in both English and German, providing an introduction to the exhibition. The introduction text was about the historic development of Calder's art made visible in the exhibition, especially the growing abstraction of his art. The text referred to other art movements as well, like surrealism, during the early years of Calder's work and artists that might have influenced him: Piet Mondrian, Hans Arp or Joan Miro. The influence of Mondrian was specifically described by a visit that Calder paid to the studios of Mondrian which supposedly affected him. Next to the

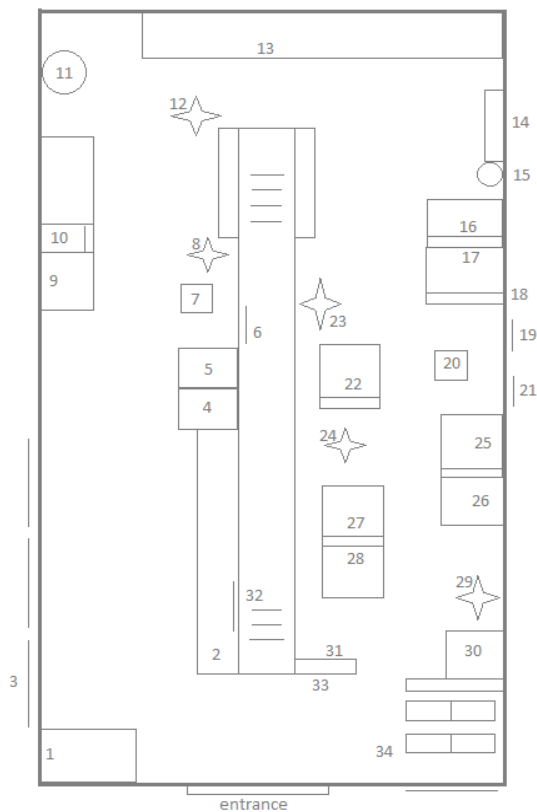
introduction text, a few minor texts were printed on the walls with small drawings on the sides with as subjects; movement, abstraction, sound, mobile, sculpture chance, balance and associations.

Picture 4.4 Entering exhibition *Avant Garde in motion* – Kleehalle K20 Kunstsammlung NRW



There were multiple attendants present overlooking the *Kleehalle* and monitoring the behaviors of the visitors. The attendants ensured that no photographs were taken, and that visitors did not attempt to touch the artworks or to try to put them in motion. These rules were, however, not visibly displayed. In the *Kleehalle* there were five attendants were present at all time: one of them stood by the doors and checked the entrance tickets of the visitors, the other four each had a different position divided over the exhibition space. One of the attendants stood by the mobile *Small Sphere and Heavy Sphere* (1932/1933). It was an installation where a white, tiny ball and somewhat bigger red ball were both connected to a rope. Both ropes were bound to a small metal rod, which was again attached to a rope from the ceiling. Every ten to fifteen minutes the guard grabbed a long bar and gently pushed the red ball. The ropes started to move and the little balls swirled against the surrounding objects. Different objects were placed on the platform underneath the ropes: bottles, a wooden box, a can and a small gong (soundboard). The contact of the small balls with the objects created sounds. The guard could not exactly predict how the rope was moving and which objects could be touched, therefore chance played a major part in the different sound patterns that were created every time.

Figure 4.1 Indication of the set-up of the exhibition *Avant Garde in motion* at the Kleehalle, Kunstsammlung NRW



Legend

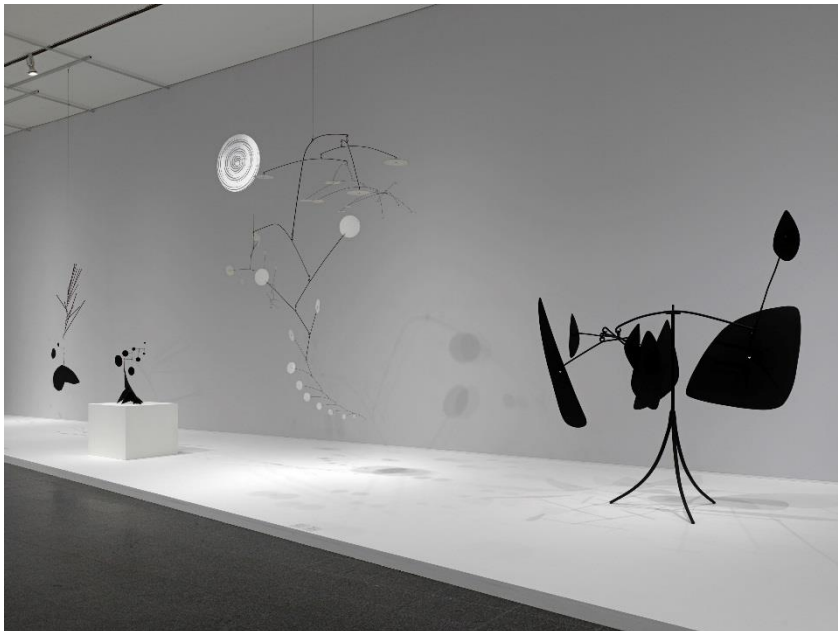
21. Platform displaying one sculpture.
22. *Medusa* (1930) wire sculptures, and paintings to those of artist Piet Mondrian on platform.
23. Texts printed on the wall + Artistic film of artist Man Ray projected.
24. *Untitled* (ca. 1934), sculpture.
25. Alexander Calder (1931) *Untitled*, sculpture.
26. Artistic film on work Calder.
27. *Untitled* (1936), sculpture on pedestal.
28. *Untitled* (1932), mobile.
29. *Small Sphere and Heavy Sphere* (1932/1933), installation.
30. Artistic film on work Calder.
31. Edgar Varèse (1929-31) *Ionisation*, sound installation.
32. Mobile, hanging from ceiling
33. Platform with two sculptures: *Les Boudiers* (1944), *Performing Seal* (1950). Three mobiles: *Blizzard* (1950), *Thirteen Spines* (1940), *The Spider* (1935-37). Artistic film is projected by Marcel Duchamp (anemic film).
34. Joan Miro (1934) *Personnages rythmiques*, painting.

Legend

1. Sculpture constructed to the wall
2. High platform with several small sculptures
3. Low platform displaying a sculpture
4. High platform displaying three sculptures
5. Painting
6. Sculpture on pedestal with Perspex cover
7. Painting
8. *Cône d'ébène* (1933), mobile
9. Mobile
10. Mobile
11. *Untitled*, (1940) sculpture on high platform
12. *Spiny* (c. 1939), maquette on platform
Mobile
13. Two sculptures on a pedestal
14. *The Spider* (1940), sculpture
15. Mobile
16. *Quatre Système rouges* (1960), mobile
17. Joan Miro (1915) *Femmes et Oiseaux dans la Nuit*, painting.
18. Photograph of Alexander Calder in his atelier
19. Display on wall, with two small sculptures
20. Six benches are set up in front of the display of a documentary film on the exhibition

At the back of the exhibition space, a small sound installation was set up. Above a circular rug on the floor a glass cupola was placed, connected to wires that were attached to the ceiling. From this cupola came sounds. The composition *Ionisation* (1929-31) from Edgar Varèse was played. On the wall at the back of the hall a short film by the artist Marcel Duchamp (1887-1968) was projected. This work stems from the same period as Alexander Calder's work and could have inspired the artist. On the same wall, a few large mobiles were hung and on the platform a few sculptures were placed; all in black and white colors, as shown in picture 4.5. The platforms spread over the space displayed different smaller and larger sculptures. The mobiles were put up either quite low above the platform, or quite high up in the space.

Picture 4.5 Mobiles and sculptures by Alexander Calder at the Klee Halle K20 Kunstsammlung NRW



Finally, there was a longer documentary film displayed on a large screen at the end of the hall. In front of this screen, four black benches were placed, on the benches lay headphones to listen to the audio of the film. On the documentary about the exhibition and the work of Alexander Calder, the curator of the exhibition and the director of the Calder foundation were interviewed. The Klee Halle was an interesting place for holding the participatory observations, because of the combination of the pedagogic elements in the hall (documentary film and texts on the wall) and the mixture of artworks: the artistic film, sculptures, mobiles, paintings and sound installation. It will be interesting for the observations how visitors will react to the set-up of the space, with a walkway and platforms guiding the route of the visitor through the exhibition, and likely also functioning as separations between the art and the public.

According to Nakajima (2012) an active involvement of the visitor came from approaching the visitor as a 'user' or participant: stimulating active reflection on the arts and physical involvement. The exhibition space displayed varied works of art of multiple disciplines: film, music, paintings, sculptures and mobiles. Visitors could listen to the music played, watch the film and follow the movement of the mobiles: these were, however, quite passive activities. The combination of sound, movement and image and the variation in size between the artworks did stimulate the senses of the visitor. Despite the fact that the main artworks of Calder were of kinetic nature, there was little movement, because of the restrictions around the artworks. The air stream in the exhibition space was regulated and visitors were kept at distance. Further, the way visitors were guided through the exhibition space could be a limitation in the active involvement of visitors as well. The placement of walls, platforms and the walkway directed the stream of visitors, which could lead to a more passive attitude of the visitor.

4.1.2 Exhibition space *Grabbehalle*

The arrangement of the *Grabbehalle* was quite similar to that of the *Kleehalle* although there were some differences. I will treat the set-up of the *Grabbehalle* a bit less elaborate, because the observations will mostly take place at the *Kleehalle* and there were several similarities between both halls. The walls of this high space were also kept white and mostly blank. Along the high, white ceiling run white pipes. On the wall opposite the two entrances were several large windows. In the middle of the hall there was again a large, white platform created of about 15-20 centimeters high. On the platform stood one large black sculpture, one smaller sculpture and two mobiles were hung above the platform. Near the walls of the doors stood three large black sculptures on the ground, as shown in picture 4.6. This is notable in comparison to the other hall, where the sculptures were smaller and they were only placed on platforms. The metal sculptures were called *Le Tamanoir* (1963), *Cactus* (1959) and *The big ear* (1943). Next to a small platform displaying smaller sculptures, at the left of the space, there was a sound installation. From a glass cupola came the sounds of music from John Cage. Cage recorded sounds in the atelier of Calder for music accompanying the movie *Works of Calder* (1950). The room could be accessed by two doors. There were two attendants that overviewed the room, from the entrances. There was a little bit of airflow in the room which slightly putted the mobiles into motion. In comparison to the first hall, this space was smaller and there were no corners created. The total room could be viewed in a glance. Therefore it was less suited to do the covered observations.

Picture 4.6 Large sculptures at the Grabbehalle of K20 Kunstsammlung NRW



4.2 The set-up of the exhibition space of *In Orbit*

The exhibition *In Orbit* took place at the top of the K21 building. Unlike the Calder exhibition, *In Orbit* was not arranged inside an exhibition hall. The installation was attached to the sides of the large glaze dome roof, and was thus literally in the open space of the museum. The installation was constructed at a height of over 25 meters above the floor, offering an overview of the museum space and the central hall of the museum. Visitors who were entering the museum could oversee the installation from beneath if they looked up, as shown in picture 4.7. Near the sides of the installation there was a gallery on which visitors could stand. The walls of the gallery were painted white. The glass of the dome roof was constructed in a metal framework, creating triangle shaped figures.

Picture 4.7 Perspective on *In Orbit* from the central hall below at the K21 Kunstsammlung NRW



Contrary to the Calder exhibition, the installation *In Orbit* formed a total work of art. The exhibition thus did not exist of several artworks. On the installation, however, different elements could be distinguished. The installation consisted of a large net structure, covering a surface of almost 800m². The net, made of steel wire, was divided into three different levels. The third level was the highest level, most close to the dome roof and most far from the ground. Underneath the third level there were two layers of net placed. The first layer of the net was most close to the floor of the museum, with nothing underneath the net structure. The levels were held apart by five spheres. Four of the spheres were transparent, the fifth one had a reflective surface, as shown in picture 4.8. The spheres were made from PVC and filled with air. Tubes were connected to the spheres and every couple of minutes new air was blown into the spheres.

Picture 4.8 Reflective sphere of In Orbit, K21 Kunstsammlung NRW



The whole installation was physically accessible to visitors, as shown in picture 4.9. However it was not completely free to come and go. Visitors got specific instructions before entering the installation. First they had to sign a form, bearing their own responsibility. Two employees made sure that all visitors signed the forms, which were in German and English. A special changing area was set-up, where visitors were required to empty their pockets and leave their belongings in a small locker. Visitors who wore glasses had to attach a string, so that it could not fall off. All visitors were further required to wear a special outfit, an overall in the colours dark blue or grey and special shoes with good grip on the soles. The two employees that were present near the installation, at the changing area, wore uniforms as well. This gave them recognisability, and if necessary the instructors could enter the installation quickly. These employees told the visitors before entering the installation that

running and jumping was not allowed. It was also not allowed to climb onto the spheres. Further there were only ten people allowed on the installation at the same time. That was also the number of people that could enter the changing section. In case of crowdedness other visitors had to wait in line outside the changing section. Visitors were only allowed to spend ten minutes on the installation at a time. One of the employees shouted out to the visitors on the installation to get back to the entrance/exit when the time was up.

Picture 4.9 Physical accessibility of In Orbit, K21 Kunstsammlung NRW



Visitors entered the installation by climbing stairs that led to the first level of the net structure. Here it went down quite steeply on to the free area of the net high above the ground. With the free area I mean the section on the middle of the net where there were no spheres or elements to hold on to. Visitors could also move to the left side when entering the installation and continue to move to the second level of the net. This part was less steep. There was no predetermined route through the installation. Around the sides of the installation visitors had more opportunity to hold on to something: they could grab the level of the net above them, which was not quite high at the sides, or they could grab the sides of the net. In the section at the middle of the net this was not possible, only around the spheres visitors had something to hold, other than the net structure under their feet. At the left side there was one place where the net was formed into a kind of tube, for people to hold on at the first or second level. Between the levels there were a few passages, which were not directly visible when entering the net. In some case visitors had to climb through a round opening of the level above. In other cases there were small open areas where the two levels were attached. At the third level there was a pillow-section, where a lot of white pillows were assembled together, see picture

4.10. The net structure offered no fixed ground, but reacted to the movements of the visitor. For the participatory observations it was therefore not only interesting to observe how the visitors behaved on the whole installation, but also in relation to the specific elements on the installation.

Picture 4.10 Pillow-section at In Orbit, K21 Kunstsammlung NRW



From my observations, it thus became clear that the installation offered different possibilities for the visitor to physically be involved. This active participation could be related to the role of the visitor as ‘prosumer’ that Nakajima (2012) described. According to her visitors are not only passive consumers in the context of the museum space. There is a sense of co-creation: both the context of the museum, the curators, artist and the public through their (social) behaviors contribute to the signification and creation of the artwork. I expected that the physical accessibility of the installation influenced the social behavior of visitors, since visitors became aware of each other through the tension of the net. I wanted to study through the interviews whether the physical accessibility of the artwork led to a more active process of signification by the visitors.

Next to the employees that were monitoring the safety on the installation and instructing the visitors, there were also two attendants present on the gallery to monitor the behavior of visitors on the gallery. Visitors were warned not to bend over the balustrade of the gallery and were told to remain at distance from the area where the installation was constructed to the large metal beams of the dome roof. This area surrounding the gallery at the sides was lined with tape. From the gallery visitors could look out over the installation, as shown in picture 4.11. The gallery was, however, not the only space belonging to the exhibition. One level down there was a small, darkened room that visitors could enter. Inside the room there were two installations of actual spider webs. The spider

web was one of the inspirations behind the construction of the installation. A guard overlooked the space and provided visitors information about the spider webs. Because I was mainly interested in how visitors reacted to the interactivity of the installation, I focused my observations on the behaviors of visitors while being on the installation.

Picture 4.11 Gallery overlooking *In Orbit*, K21 Kunstsammlung NRW



In relation to the previous discussed literature on the experience of the (museum) space, I felt that the participation of visitors on the installation was interesting. From up high on the net, visitors had a helicopter-perspective on the museum, they overlooked the space. Their position was detached from the further museum environment, since the installation was placed in an in-between space: not inside a defined hall, but just not outside of the museum space. Thereby the position of the visitor could be related to the distant perspective on the city from skyscrapers that De Certeau (2007) wrote about. From offices in skyscrapers planners could overlook the city, but by their elevated position they were detached from it. Down below, pedestrians walked the streets of the city and through their physical involvement they inhabited the space of the city. *In Orbit* seemed to provide visitors the opportunity to occupy both positions: from up high in the museum building they look out both over the city of Dusseldorf and over the space of the museum. At the same time, however, they were physically involved into the space of the museum, because of their movement the installation was put into motion. It will be interesting with the interviews, how respondents experienced their position in space in relation to their physical involvement.

4.3 Conclusion

There were quite a few differences between the set-up of the Calder- and the Saraceno exhibition. Where the Calder exhibition displayed several different artworks in two clear defined exhibition halls, the Saraceno exhibition just contained the installation. This installation was constructed in the in-between space under the glaze dome roof. In case of the Calder exhibition, the route through the exhibition was directed by platforms, walls and a walkway. In addition, there were several measures to assure that visitors do not touch or directly interact with the artworks. The platforms were a separation between the visitor and the displayed artwork and attendants monitored the exhibition space. For the Saraceno exhibition, interaction with the installation was encouraged. Visitors could enter the installation, lie down on it, sit, climb or walk. They could touch the spheres and move relatively freely, there was no predetermined route. There were also some limitations however, jumping and running was not allowed and no more than ten visitors could enter the net together. There was a time frame of ten minutes that could be spent on the installation at once. Visitors were required to wear an overall provided by the museum and special shoes. This distinguished visitors on the installation and made them recognizable, but might have affected social behavior as well, because the first impression of the other visitors was not caused by clothing, but by behavior.

There were, however, also similarities between both exhibitions, which is why I chose them for comparison in the first place. The mobiles and some of the sculptures at the Saraceno exhibition revolved around the movement or the potential to move. There was not a lot of air flow in the exhibition space and touching was not allowed, but the mobiles twirl slightly. Movement was central at the Saraceno exhibition too, were the installation reacted to the movement of the visitors. Both types of art could therefore be gathered under 'kinetic arts'. Both exhibitions also shared the abstract nature of the artworks. Organic forms were recognizable with both the mobiles and sculptures of Calder, the spheres on the installation remain abstract in their circular shapes as well. Both exhibitions contained modern art, with no significant references to older art. At both exhibitions, an introduction text was placed on the wall near the entrance, but in the further exhibition no long texts were displayed; emphasizing the art itself.

Chapter 5: The relation between the social behavior of museum visitors and the spatial set-up of the exhibition

In the former chapter I analyzed the spatial set-up of the exhibition spaces of *Avant garde in motion* and *In Orbit*. In this chapter, I will relate the interactional behavior of museum visitors to the spatial set-up of these exhibitions. The outcomes of the observations I conducted are related to the sub-question: *Which elements of the exhibitions In Orbit and Avant Garde in motion do or do not evoke social behaviors among visitors and how is this expressed?* In order to answer this question, I carried out participatory observations among visitors of both exhibitions. In this chapter, the results of the observations will be analyzed and connected to the theory. First, I will treat the subjects of observation, the categories of observation and my data analysis. Then, I will separately go into the results of the different categories I used during the observations: the type of artwork, the activity of the subject, the facial expressions and verbal- and nonverbal interaction. Then, I will relate the outcomes of the behavioral aspects of the observation to the type of artwork. This will be followed by an analysis of possible relations between the times spent on different behaviors (per visitor). I incorporated tables to provide overviews of the outcomes. Finally, I will give a short summary of the most important results.

5.1 The subjects

In order to gain insight in the behavior of museum visitors in the exhibition space, I have chosen to do participatory observations. I have observed 32 visitors; sixteen visitors at the exhibition *Avant Garde in motion* with art of Alexander Calder and sixteen visitors at the exhibition *In Orbit*, showcasing the installation of Tomás Saraceno. I wrote down the observations at an interval of twenty seconds, at the beginning of the interval. Therefore, I use the term 'moment' or 'interval' instead of 'period', when referring to the observations, because it could happen that visitors were standing still at the moment of observation, but also walked within the same time frame. The observations lasted fifteen minutes per subject, which led to 45 moments of observation per subject. The choice of subjects was based on a select sampling procedure, so there could be as much similarity between the selected visitors from both exhibitions as possible. The criteria I used to match the samples were that visitors had to be over twenty years old, with a German background and travelling solo or with one to four companions. Further, I strived for a similar number of male and female visitors (eight male, eight female), a similar spread of number of companions and a similar spread of ages. The criteria of age was hard to determine since I carried out covert observations. I distinguished three broad age groups (20-40; 40-60; 60+) and selected an even number of visitors from the three groups.

Table 5.1 Subjects of observation

| | No. of observ | Male | Female | Solo | 1 comp | 2 comp | 3/4 comp | Age 20-39 | Age 40-59 | Age 60+ |
|--------|---------------|------|--------|------|--------|--------|----------|-----------|-----------|---------|
| Calder | 16 | 8 | 8 | 4 | 7 | 4 | 1 | 6 | 6 | 4 |
| Sarac. | 16 | 7 | 9 | 3 | 6 | 4 | 3 | 9 | 5 | 2 |

The table above offers an overview of the actual subjects. It becomes obvious that there were a few differences between the subjects of both exhibitions. Where I observed equal male and female visitors at the Calder exhibition, I observed one more female visitor (and one less male visitor) at the Saraceno exhibition. At the Saraceno exhibition I observed three visitors with three or four companions, while at the Calder exhibition this was just one visitor. The largest difference, however, was that I observed more visitors at the Saraceno exhibition that I indicated in the age group of twenty to 39 years old. This was due to a noticeably higher amount of middle-aged to senior people visiting the Calder exhibition the days I conducted the observations, as compared to the noticeable younger public at the Saraceno exhibition at the days of research. At both exhibitions my observations took place during the week as well as in the weekend. Therefore, this could be an indication that the Saraceno exhibition was visited by an overall younger public, yet I did not analyze this so it cannot be established. Despite my attempt to do my research at two comparable exhibitions from the same museum, attracting a similar public, it could be indicated that both exhibitions attracted somewhat different groups of people. Since the participatory observations were covert, I do not know the exact age of the subjects, the assigned age group was an estimation. My purpose for giving an age indication was purely to assure that the image of visitors was varied and that the population of subjects from both exhibitions were quite similar.

5.2 The categories of observations

In order to monitor the behavior of the visitors, I drew up an observation scheme, see appendix B. The scheme included eight different categories: the moment of observation, the kind of artwork that the subject was occupied with, the position regarding the artwork in meters, the activity of the subjects, the facial expression of the subject, verbal interaction, non-verbal interaction, and interaction with a known or unknown person. At the beginning of every twenty seconds I scored the behavior of an individual subject. For example, at moment one the subject had a distance of three to five meters, standing still in front of a painting, his expression was serious, he was silent and holding hands with his companion.

Having done my observations, I began processing the data by coding the different observations. Each observation belonged to a certain category that I assigned a number. For instance the observations 'silence', 'whispering', 'talking' and 'shouting' belonged to the category verbal communication, and were assigned the numbers one, two, three and four, respectively. I enlisted the numeral codes into the data-analysis program *SPSS* with the matching label. After I entered all the data into the program, I began to analyze the data by calculating the frequencies with which a behavioral category occurred and the relations between the categories. To gain insight into possible connections between different categories, I first made cross tables. The data in the cross tables showed the moments of observation as units of analysis. I also wanted to get insight in differences between the subjects, therefore I aligned all the different behaviors and aggregated the data from the file, so that the data was presented per subject rather than per observed period. This way I calculated the means of the different behaviors divided into the Calder- and Saraceno exhibition.

In order to analyze the data, I reduced the number of original codes used for my observations by combining similar codes or recoding values that rarely occurred as 'missing'. For example, the activities calling, texting or taking pictures formed a very small percentage of the overall performed actions and caused numerous empty cells in the following analysis. Therefore, I choose not to treat all these observed actions separately but to combine them together whenever possible or necessary. In analyzing the data I tested whether the differences between the exhibitions and relations between observations were significant. Because the group of subjects was quite small for this quantitative approach, which limited the power of this study, I applied the 10% value ($p < 0,1$) instead of using 5% as the norm for significant results in order to minimize the likelihood of making so-called type II errors (unjustly accepting the null hypothesis that there was no effect or difference). Below, I will present the findings organized by different categories, before I will relate the results to each other.

5.3 Results of the observations

Here, I will outline the results of the observations. I made a distinction between the results of the Calder exhibition (*Avant Garde in motion*) and the Saraceno exhibition (*In Orbit*). After presenting the results I in tables, I will relate the outcomes of my observations from both exhibitions to each other.

5.3.1 Observations on the type of artworks

At the Calder exhibition, I distinguished between the different artworks such as mobiles, sculptures, paintings, artistic film and music installations. Next to that, I also included informational texts and documentary film. These were included in the exhibition by the curator with a pedagogic aim, but visitors were engaged with these elements. Therefore I included them into the category 'artworks',

although the correct label can be discussed. The elements of the Saraceno exhibition were even more of a challenge to code into the category of ‘artwork’, since the exhibition consists of one installation as a total work of art. I distinguished the different levels of the net, the spheres and the pillow-section. The division into separate codes provided me the opportunity to observe how the museum visitors reacted to the different elements of the installation.

Table 5.2 Means - Time spent per subject with different artworks

| Calder exhibition | | | | | | | | Saraceno exhibition | | | | |
|-------------------|--------|-----------|-------|--------|-------|-------|-------|---------------------|-------|-------|--------|--------|
| time p. | mobile | sculpture | docu | paint. | film | music | text | net 1 | net 2 | net 3 | sphere | pillow |
| respondent | 0,318 | 0,282 | 0,104 | 0,069 | 0,049 | 0,046 | 0,032 | 0,218 | 0,300 | 0,201 | 0,033 | 0,038 |

Using SPSS I calculated the means of subjects’ occupation with certain artworks. I calculated this separately for the Calder- and the Saraceno exhibition and the calculation was based on the aggregated file, using subjects as units of analysis. At the Calder exhibition, most attention per subject was spent with the mobiles, namely 32%, followed by the sculptures with 28%. These high percentages were followed by 10% of time spent per subject with the documentary film, 7% with the paintings and just 5% with the music installations as well as the artistic films. The least amount of time per subject was spent with the texts on the walls, only 3%. A limited amount of time, visitors were not occupied with one particular artwork, but they overlooked the exhibition in general or interacted with each other. I reported this spent time as ‘missing’, in the category ‘artwork’. The outcomes are presented in table 5.2. It must be noted that most of the artworks displayed were mobiles and sculptures. There were only two music installations, six paintings and four projections of artistic films, as compared to close to twenty mobiles and approximately 25 sculptures (large and small). This could explain the differences in attention between the different art forms. It is noteworthy, however, that after the mobiles and sculptures, the subjects gave most of their attention to the documentary film. There was just one documentary film in the exhibition space, while there were a few artistic films shown. As already mentioned in the previous chapter, next to the different intentions of both films (artistic versus pedagogic), the set-up of the artistic film and the documentary film was quite different as well. For the documentary film, visitors could sit down, which was not the case for the artistic film. Next to that, the displayed documentary lasted longer than the artistic films. These differences in arrangement could explain the higher amount of attention from the visitors to the documentary film.

The Saraceno exhibition consisted of one large installation as a total work of art. However, I did want to know how the people behaved inside this installation: were there, for example, elements in the installation to which the visitors paid more attention? I distinguished five different codes,

dividing the large net into three different levels. The first level is the layer of the net that was closest to the ground, at this level visitors entered the installation. The second level was constructed above the first level and there were different ways to enter this level. The third level was placed the highest, above the first two levels. Next to these levels, I also distinguished the pillow-section on the net and the five different spheres that were placed on and in between the nets. It becomes clear that most time per visitor was spent on the net, namely 72%, this is a lot more compared to the time spent with the spheres (3%) or on the pillow-section (4%). The spheres were the only elements of the installation that visitors could not enter. The difference between the amounts of time that was spent per subject on the different layers of the net was not major. While 30% of time was spent per subject on the second level of the net, this was followed by 22% for the first layer and 20% for the third layer.

5.3.2 The activities of the subjects

The next category contained the time spent per subject on activities, an overview is shown in table 5.3. At the Calder exhibition the activities standing, walking, sitting and reading were included. By far, most time per subject was spent standing, namely 52%. Next, most time per subject was spent walking, with 30%. Less time per subject was spent sitting down (11%) or reading (6%). The empty cells represent activities that were not performed at the Calder exhibition. The numbers on the activity standing are printed bold, because the differences on time spent per subject on this activity between both exhibitions were significant.

Table 5.3 Means – Time spent per subject on activities

| | stand | walk | sit | read | touch art | lie | crawl | photo/ call | change clothes |
|--------|--------------|-------|-------|-------|--------------|-------|--------|----------------|-------------------|
| Calder | 0,520 | 0,304 | 0,108 | 0,064 | | | | | |
| Sarac. | 0,206 | 0,251 | 0,200 | | 0,021 | 0,056 | 0,0161 | 0,022 | 0,078 |

The subjects at the Saraceno exhibition engaged in more different activities. I reduced the original fourteen observed activities of running, pulling rope, dropping down, jumping, bouncing, posing for a photo, photographing, texting on mobile, kneeling down, lying at back, lying at belly, touching the artwork, climbing and crawling to eight different codes. I combined the data of similar activities like kneeling down and sitting, lying at back and lying at belly. The category reading was left out, because the observations took place at the installation, where there were no texts. The time spent standing per subject was less at the Saraceno exhibition, with 21%. Walking was actually the most performed activity with 25% of time spent per subject. Sitting and crawling followed closely in the amount of time spent per subject, with respectively 20% and 16%. Further activities were performed

less, with respectively 8% of time spent per subject changing clothes, 6% lying down and both 2% photographing/calling and touching the art. So, the results show that besides there being more variety in the performed activities, there was also more of a spread in time spent per subject on these activities at the Saraceno exhibition in comparison to the Calder exhibition. The only significant difference between both exhibitions was in time spent per subject on standing still.

5.3.3 The facial expressions of the subjects

The results of the facial expressions shown per subject are displayed in table 5.4. There were again some remarkable differences between both exhibitions. Three codes were distinguished: serious expressions, smiling and laughing. Most subjects looked serious while going through the Calder exhibition, 92% of the time per subject was spent with a serious expression. Only 5% was spent smiling and with 2%, laughing was the least common expression at the Calder exhibition.

At the Saraceno exhibition, only 64% of the time per subject was spent looking serious. The difference of time spent per subject of looking serious between the Calder and Saraceno exhibition was significant and therefore printed bold. The difference between the exhibitions as regards to the time spent smiling per subject was significant as well, with 5% at the Calder exhibition and 25% at the Saraceno exhibition. The difference regarding the expression of laughing was much smaller and therefore not significant. Per subject, 4% of the time was spent laughing at the Saraceno exhibition, which was comparable to the Calder exhibition.

Table 5.4 Means – expression per subject

| | serious | smile | laugh |
|----------|--------------|--------------|-------|
| Calder | 0,924 | 0,051 | 0,022 |
| Saraceno | 0,643 | 0,251 | 0,039 |

So, people at the Saraceno exhibition smiled more and spent less time looking serious. In the first chapter, I related the facial expressions to interaction. I described interaction as a form of social behaviors where two or more people were in each other’s perceptual range, through their gestures, attitudes, body posture and facial expressions (Vom Lehn, 2007). In this case I only calculated the percentage of time spent per subject on facial expressions and did not relate these expressions to a social context. Therefore the results do not directly indicate that there was more interaction at the Saraceno exhibition. The results were, however, an indication of a less serious approach to the arts.

5.3.4 Verbal and nonverbal interaction of the subject

I displayed the results of the time per subject that was spent verbally interacting and nonverbally interacting in one table. I added the category that distinguishes interaction with known and unknown visitors. In case of the category verbal interaction, there were four codes: silence, whisper, talking out loud and shouting. At both exhibition the time spent per subject in silence was quite similar and the differences were therefore not significant. With 64% at the Calder exhibition and 67%, it can be stated that subjects spent most time in silence. At the Calder exhibition the percentage of time spent whispering per subject was 27%, while 8% of the time per subject was spent talking and none of the subjects shouted. The difference in whispering was significant between both exhibitions, because only 6% of the time per subject was spent whispering at the Saraceno exhibition. Per respondent as many as 30% of the time per respondent was spent talking, which was again a significant difference. Finally, 2% of the time per subject was spent shouting, because this percentage was so small I excluded this code from further calculations.

Table 5.5 Means – Time spent per subject verbally/nonverbally interacting with known/unknown persons

| | Verbal interaction | | | | Nonverbal interaction | | | | | (un)known | | |
|--------|--------------------|--------------|--------------|--------------|-----------------------|---------|-----------|-------|----------|-----------|--------------|--------------|
| | silence | whisper | talking | shouting | none | gesture | eye cont. | touch | hand arm | known | unkn. | guard |
| Calder | 0,639 | 0,273 | 0,088 | | 0,889 | 0,046 | 0,029 | 0,017 | 0,013 | 0,244 | 0,011 | 0,014 |
| Sarac | 0,669 | 0,006 | 0,303 | 0,022 | 0,775 | 0,042 | 0,078 | 0,011 | 0,032 | 0,325 | 0,060 | |

The differences in verbal communication between the two exhibitions could indicate different cultural conventions that were adopted, in the sense that Goulding (2000) and Balloffet et al. (2014) wrote about, which I referred to in the second chapter of my thesis. Silence and whispering could be perceived as behaviors that relate to a more classical approach of the museum, where the museum was viewed as a sacred place where reflection and contemplation were key. Talking out loud and shouting did not fit into this traditional perspective on appropriate behavior in the museum context. The difference in verbal behavior at the Saraceno exhibition might therefore be an indication that the traditional cultural conventions of a calm and composed demeanor were less applied by visitors.

In terms of nonverbal interaction, table 5.5 mostly shows small differences that were not significant. An exception was the code 'no verbal interaction' that displays a significant difference. At the Calder exhibition 89% of time per subject was spent without nonverbal interaction, opposite 78% at the Saraceno exhibition. So, in total there was a bit more nonverbal interaction among visitors of the Saraceno exhibition. The percentages of time spent per subject with these interactions were however quite small, consecutively for the Calder and Saraceno exhibition: for gesturing 5% versus

4%, for direct eye contact 3% versus 8%, for touching 2% versus 1% and for holding hands 1% versus 3%. This shows that there was little nonverbal interaction overall and that the differences in different forms of nonverbal interaction were negligible.

The final category deals with the time spent per subject on interaction with known or unknown visitors. Per subject, most time was spent interacting with companions at both exhibitions; 24% in case of the Calder exhibition versus 33% percent at the Saraceno exhibition. This difference was not significant. The time spent per subject with unknown visitors was 1% at the Calder exhibition and 6% for the Saraceno exhibition. Since little time was spent by visitors interacting with unknown visitors, this difference was significant. At the Saraceno exhibition, there was no interaction with the guards, since the observations took place on the installation, where there were no guards present. At the Calder exhibition 1% of time per subject was spent interacting with the guards. So, most of the interaction of visitors was aimed at their companions. There was hardly any interaction with other visitors or guards.

In relation to the theory of Bourriaud (2002) on relational aesthetics, these outcomes were interesting. According to him, art should stimulate or evoke social behaviors among visitors; through interaction and interpersonal relations at the exhibition space, the distant, anonymous visitor could transform into an acquaintance or companion. The visitors that were together present in front of an artwork could be related through their shared process of signification to the art. However, at both exhibitions verbal- and nonverbal interaction was limited. Per subject, most of the time was spent in silence and without nonverbal interaction and there was hardly any interaction with unknown visitors. The vision of Bourriaud (2002) on art that encourages interaction among visitors did not turn into reality at these exhibitions.

5.4 The social behavior of visitors in relation to the artworks

The behavior of the visitors cannot be isolated. They take place in a specific context, the context of the museum and the exhibition. In this research, I am particularly interested in how the degree of physical accessibility of the art relates to the (interactional) behaviors of the visitors. Therefore, I will first relate the behaviors of the visitor to involvement with particular artworks. I used the data from the original file (not aggregated as I want to show how often a certain behavior occurred together with being involved with a particular type of artwork) to analyze the behaviors that were shown in the presence of the different artworks.² I am interested in how the results of the behaviors of the visitors

² Since the observed moments within a single subject were not independent, significance levels are likely to be overestimated. This does not, however, affect the relative differences observed in this section.

could be explained by the differences in artworks from both exhibitions. The moments or intervals in which the behaviors were shown were in this case the units of analysis. Through *SPSS* I also calculated the possible correlations between different codes, to gain insight in coherence between the behaviors of the visitors. These calculations were based on the aggregated file, where individual visitors (subjects) were the research units. I included a complete overview of the correlations in appendix A. In this section I will refer to the most important correlations.

5.4.1 Activities of subjects around the artworks

Table 5.6 offers an overview of the results from the observations regarding visitors' involvement with particular activities. The table contains both the data of the Calder- and the Saraceno exhibition. For each artwork a percentage is shown for how often a particular activity was performed relative to the total time that subjects spent in front of that work.

As already established previously, most time per subject at the Calder exhibition was spent involved with the mobiles, sculptures or documentary films. These are therefore the categories that I am most interested in. Of the time subjects spent with the mobiles, they spent 61% standing, 31% of that time they were walking and only 4,4% and 3,9% was spent sitting down or reading. These numbers were quite similar for the sculptures where 54,2% of the total time with the artwork was spent standing, 36% walking, 8,4% reading and 1,5% sitting down. So, more time was spent reading and walking while being involved with the sculptures, than with the mobiles. The percentages for the documentary film were different, since as many as 81,3% of the total time was spent sitting down. This could be explained by the set-up; six benches were placed in front of the television screen. On the benches were headphones to hear the sound of the documentary, so in order to completely watch the film it was required to sit down. In the remaining space of the exhibition, a few benches were placed on both sides of the walkway in the Klee-halle. This means that there was no opportunity provided to sit down near every mobile or sculpture, which probably explains the mentioned differences in activities.

In general, with the different artworks there was little time spent reading, except when visitors were in front of texts, as could be expected. The least amount of time was spent reading in front of mobiles, and, as expected, the documentary film. Near the mobiles, sculptures and paintings, quite a lot of time was spent walking, over 30%. This was significantly lower with the documentary- and artistic films, the music installation and the texts. The dominant activity near all artworks except the documentary film and the texts was standing. Sitting down was an activity that took place the least in case of all artworks, except the documentary film. Compared to the other artworks, the percentage of time spent sitting down near texts was a bit higher as well.

The percentages of time spent on physical activities near documentary- and artistic films, music installations and texts thus varied the most. All the differences in percentages were in this case significant. Around the artistic films and music installations, not much time was spent sitting down, but there were also no benches provided there. Most of the time was spent standing with the artistic film and music installation, which could be explained by the fact that visitors had to stand under a glass shade to hear music. Further, the categories text and documentary film shared a pedagogic intention, aimed at informing the visitors about the exhibition. It was therefore not strange that the division of time spent on activities varied from the other artworks. Next to these observations, it can also be noted that the subjects were involved with a few more activities that were not distinguished in the table.³

Table 5.6 Total time spent with artworks in relation to different activities

| | | read | walk | stand | sit | lie down | crawl | touch art |
|------------------------|-----------|-------|-------|-------|-------|-------------|-------|--------------|
| Calder exhibition | mobile | 3,9% | 30,7% | 61,0% | 4,4% | | | |
| | sculpture | 8,4% | 36,0% | 54,2% | 1,5% | | | |
| | painting | 2,0% | 38,0% | 60,0% | 0,0% | | | |
| | docu | 0,0% | 6,7% | 12,0% | 81,3% | | | |
| | art.film | 8,8% | 17,6% | 70,6% | 2,9% | | | |
| | music | 12,1% | 12,1% | 75,8% | 0,0% | | | |
| | text | 47,8% | 21,7% | 17,4% | 13,0% | | | |
| Saraceno exhibition | net 1 | | 17,8% | 18,5% | 30,6% | 0,0% | 33,1% | |
| | net 2 | | 29,4% | 28,5% | 21,5% | 4,7% | 15,9% | |
| | net 3 | | 38,9% | 20,1% | 16,0% | 13,9% | 11,1% | |
| | sphere | | 8,3% | 41,7% | | | | 50,0% |
| | pillows | | 11,5% | 0,0% | 46,2% | 38,5% | 3,8% | |

The range of different activities was wider in the case of the Saraceno exhibition. There were some differences in activities between the different elements of the installation. When the subjects found themselves at the third level of the net, they spent most time walking, while at the first level most time was spent sitting down. However, at the third level of the net there was also the pillow-section and the subjects spent 84,7% of the total time there by sitting or lying down. Further, it was

³ I left two categories of physical activity out. A few subjects were blowing at the mobiles and one of the subjects was calling on his cell phone. These actions however formed such a small part of the total of activities that I reported these data as 'missing'.

remarkable that subjects spent 33,1% of their time on the first level of the net crawling, while this was only 15,9% and 11,1% at the other levels. Perhaps this could be explained by the fact that visitors entered the installation on the first level where it was quite steep round the entrance. Visitors might have needed to adapt to moving around the net as well, and therefore started by crawling. It will be interesting to analyze what the respondents of the interviews said about moving around the net. At the spheres, the subjects did not sit down, lie down or crawl. This can easily be explained by the fact that the spheres could not be entered. Visitors could only touch them or walk around them. In relation to the other elements of the installation, touching was most uncommon. Since the subjects already touched the net when walking on it and already touched the pillows when sitting on it, I did not include these actions as 'touching', which explains the low percentages.

It is interesting to note that the net structure evoked the widest range of physical activities. On all three layers there was not one physical activity that was predominant. This could be related to the interactive nature of the net structure. As established in the chapter on the arrangement of space, there was much more opportunity for visitors of the Saraceno exhibition to be physically involved than was the case with the Calder exhibition. Because of the reactive nature of the net structure, the physical involvement of visitors was demanded: the net structure offered no fixed base, but an environment to which visitors had to physically adapt. At the Calder exhibition, I established that physical involvement was very limited. Visitors were guided through the exhibition in a predetermined route, by the walls, platforms and the walkway, which kept the visitors at a distance from the artworks. This set-up thus seemed to have had its effect on the physical activities among visitors. At the Saraceno exhibition subjects displayed behaviors, such as crawling, lying down and touching the art, that were probably considered undesirable or inappropriate in a more conventional museum culture, as Goulding (2002) wrote about.

The position of the subjects in relation to the artworks was another aspect of my observations. At the Calder exhibition, I wrote down the distance of subject to the artwork in meters, where in case of the Saraceno exhibition (where the subjects were already on the artwork/installation) I noted down their position on the sides or at the center. In tables 5.7 en 5.8 I gave an overview of the total time spent of subjects on different positions in relation to the artworks, and the relation between the distance to the artworks and the activities. At the Saraceno exhibition, I observed the subjects while they spent time on the installation. However, a bit of time was spent outside the installation, at the gallery or the changing area, in case visitors left the net early. Because of the low percentages, I reported these data as 'missing'.

Table 5.7 Calder exhibition - Total time spent at different positions in relation to the artworks and to the activities

| Artwork | | | | | | | | Activity | | | |
|----------|--------|-----------|----------|-------|----------|-------|------|----------|-------|-------|-------|
| Distance | mobile | sculpture | painting | docu | art film | music | text | read | walk | stand | sit |
| 0-3m | 30,4% | 37,3% | 7,0% | 7,7% | 7,0% | 7,7% | 2,9% | 7,2% | 24,5% | 59,4% | 8,9% |
| 3-5m | 38,9% | 19,2% | 10,4% | 22,3% | 3,1% | 0,5% | 5,7% | 6,9% | 36,6% | 37,6% | 18,8% |
| >5m | 70,0% | 27,5% | 2,5% | | | | | 1,1% | 46,0% | 50,6% | 2,3% |

At the Calder exhibition, it was notable that of the total time that visitors spent on a distance of over five meters to the art, as much as 70% was spent involved with the mobiles. This was quite a lot, visitors thus appreciated the mobiles more from a distance, in comparison to the other artworks. Further, of the total time that the subjects spent with a distance of 3-5 meters to the art, 22,3% was spent around the documentary film. This can easily be explained by the set-up, there was a little over three meters distance between the benches and the screen. This result shows that most visitors respected the set-up of the exhibition, and were maintaining the distance to the film screen that the curator had initiated. Further, there was a positive correlation between the time that visitors spent at a distance of three to five meters to the artwork and the time spent sitting down. This might be related to the placements of the benches which were not located directly near the artworks.

Table 5.8 Saraceno exhibition - Total time spent at different positions in relation to the artworks and to the activities

| | Artwork | | | | | Activity | | | | | |
|----------|---------|-------|-------|--------|---------|----------|-------|-------|-------|-------|-----------|
| Position | net 1 | net 2 | net 3 | sphere | pillows | walk | stand | sit | lie | crawl | touch art |
| center | 16,5% | 36,7% | 34,4% | 4,6% | | 36,5% | 25,1% | 14,0% | 10,3% | 8,8% | 2,8% |
| sides | 44,3% | 40,3% | 11,8% | 3,6% | 7,8% | 10,7% | 16,7% | 34,2% | 1,7% | 34,6% | 2,1% |

Table 5.8 shows that at the Saraceno exhibition, visitors spent a high percentage of time on the first level, at the sides of the net structure. At the third level, visitors spent a higher percentage of time at the center of the net structure. This could be explained by the fact that visitors entered the installation on the first level. The subjects might have been a bit unsure moving on the wobbling net structure and therefore sought the security of the sides, where there were more possibilities to hold on to something. Further, of the total time that subjects spent on the sides, quite a bit was spent sitting down or crawling, this was established by a positive correlation. There was a negative correlation between the time that visitors spent at the center of the installation and sitting down, but a positive correlation between the time spent at the center and the time spent walking. So, subjects were more active at the center of the net, high above the ground and seemed to have been looking for more security near the sides. Or, another explanation could be that subjects moved quicker at the center area of the net because of the (fear of) height and the lack of opportunity to hold on to something.

5.4.2 Expression and interaction of subjects around the artworks

An overview of the results of the calculated cross tables of the categories ‘type of artwork’, ‘facial expression’, ‘verbal interaction’ and ‘nonverbal’ are shown in table 5.9. In the analysis of these categories I chose not to separate the different levels of the net. The differences between the facial expression, verbal communication, non-verbal communication and interaction with other visitors between the three levels of the net were actually quite small. By treating the net as one element – all the levels of the net were connected – the data was reduced to fewer categories which increased the power of the analysis. I also merged the subcategories ‘artistic film’ and ‘music installation’ to increase the power of the analysis, the subjects spent few moment with these multimedia art forms.

Table 5.9 Total time spent with artworks in relation to expression, verbal and nonverbal interaction

| | Facial expression | | | Verbal inter | | | Nonverbal interact | | | | | (un)Known person | | |
|----------|-------------------|-------|-------|--------------|---------|-------|--------------------|-------|---------|-------|------|------------------|-------|-------|
| | serious | smile | laugh | silent | whisper | talk | none | touch | gesture | hands | eye | known | unkn. | guard |
| mobile | 89,0% | 8,8% | 2,2% | 47,2% | 44,1% | 8,7% | 82,0% | 2,6% | 7,9% | 1,3% | 6,1% | 84,8% | 6,3% | 8,9% |
| sculpt | 94,6% | 2,5% | 3,0% | 70,0% | 21,2% | 8,9% | 93,0% | 1,0% | 2,5% | 1,5% | 2,0% | 94,5% | 3,6% | 1,8% |
| painting | 94,0% | 4,0% | 2,0% | 66,0% | 26,0% | 8,0% | 91,8% | 2,0% | 4,1% | | 2,0% | 92,2% | | 7,1% |
| docu | 98,7% | 1,3% | | 93,3% | 6,7% | | 100,0% | | | | | | | |
| film. | 92,6% | 5,9% | 1,5% | 92,6% | 5,9% | 1,5% | 91,2% | 4,4% | 2,9% | 1,5% | | 94,1% | 5,9% | |
| Music | | | | | | | | | | | | | | |
| text | 81,1% | 9,1% | 9,1% | 52,2% | 30,4% | 17,4% | 87,0% | | 4,3% | 8,7% | | 100% | | |
| net | 66,7% | 29,4% | 3,9% | 68,3% | | 29,9% | 81,4% | 1,4% | 4,1% | 4,1% | 9,0% | 79,1% | 20,9% | |
| sphere | 83,3% | 16,7% | | 62,5% | | 37,5% | 83,3% | | 12,5% | | 4,2% | 100% | | |
| pillows | 50,0% | 31,3% | 18,8% | 66,7% | | 33,3% | 83,3% | | | 11,1% | 5,6% | 100% | | |

Table 5.9 shows at the Calder exhibition a comparable spread of time spent by subjects with a serious expression with the different artworks, percentages of serious expression range from 81,1% of the time spent with texts to as much as 98,7% of the time spent with documentary film. There was also a quite even spread of time spent smiling or laughing with the different artworks. Around the texts on the walls, however, the subjects spent in comparison to the artworks, more time smiling (9,1%) and laughing (9,1%). Around the mobiles, subjects spent a quite similar percentage of time smiling, namely 8,8%, but much less time laughing. The percentages might seem small, but even less time was spent smiling and laughing in front of other artworks. In case of the sculptures and documentary film, subjects spent respectively 2,5% and 1,3% of the total time with the artwork smiling and they did not laugh out loud at all. In front of the documentary film, subjects did not laugh at all. In interpreting these results, the question arises whether the nature of the texts made subjects smile, or that subjects spent more time interacting while looking at the texts and that this evoked the

smiling. It must be noted, however, that a very small percentage of the total time was spent by visitors near the texts.

At the Saraceno exhibition there was more variation between the categories of artworks and the facial expressions. Near the spheres, most time was spent looking serious, with 83,3%, and no laughing took place. On the net, looking serious was less prevalent with 66,7%, while 29,4% of the time was spent smiling. At the pillow-section, however, just 50% of the time was spent looking serious, while 31,3% of the time was spent smiling and 18,8 % of the time subjects were laughing. These percentages differ significantly from the time that visitors spent smiling near artworks at the Calder exhibition. I must add that my observations took place from the gallery from which I looked upwards to the net. When the subjects were actually lying down in the pillow-section I therefore could not properly see their facial expression or nonverbal communication, so I had to record these data as 'missing'. This complicates the interpretation of the differences in results.

I included the results on the percentages of time that subjects spent in verbal interaction, while being involved with a particular artwork. At the Calder exhibition, with the documentary film and the artistic film/music installation, subjects spent most time being quiet. This was logical because listening to the music of the installation or the sound of the film required silence. At the documentary, there was no time spent talking at all, while with the artistic film and music this percentage was really low (1,5%). Near the mobiles, paintings and texts, the time that subjects spent in silence was much lower than with the documentary, artistic film and music installation. Here, of the total time spent, respectively 42,2%, 66% and 52,2% was spent in silence. The amount of time spent near the mobiles whispering was as much as 44,1%; more time than was spent in silence. Near the paintings and texts respectively 26% and 30,4% of the time was spent whispering. The percentages of time that was spent talking were much closer to one another, in case of the mobiles, sculptures and paintings the percentages varied between 8-9%. Near the texts, more time was spent talking out loud, with 17,9%.

Bourriaud (2002) envisioned that art evoked conversation and discussion. This does not seem to be the case at the Calder exhibition. Actually, most conversation was evoked by the texts on the walls. This contrasts the intention of Bourriaud (2002) who hoped that not only the artworks evoked conversation, but that visitors engaged in an active process of signification as well. The texts on the walls provided background information. By their interest in the texts, visitors probably depended on the curator who drafted the texts for signification. Or, the texts evoked discussion about the possible signification, as Bourriaud (2002) intended. I expect that the interviews have provided more insight in the function of the texts for visitors.

At the Saraceno exhibition, the percentages lay quite close together. On the net, as well as near the spheres and on the pillows the time spent in silence was around 65%. No time was spent

whispering at any of these elements. At the spheres, the time spent talking by subjects was the highest with 37,5%. On the net and with the pillows, this percentage was around 30%. Only on the net, subjects were found shouting, but for a limited amount of time, namely 1,7% of the time spent on the net. Because of the low percentage, I did not include this into the table.

The third category included into the table was related to the time spent with nonverbal interaction in the vicinity of a particular artwork. Of the total amount of time spent with the particular artworks, the percentages of time without nonverbal interaction were quite high overall, ranging from 82% near the mobiles, to as much as 100% at the documentary. The time spent nonverbally communicating was therefore limited, ranging from 0% to 4,5%. Exceptions were the amount of time spent near the mobiles on gesturing (7,9% of the total time spent with the mobiles) and having direct eye contact (6,1%).

The final category included in table 5.9 is the amount of time spent in relation to a particular artwork in interaction with a known or unknown person at the exhibition, interaction could both be verbal or nonverbal interaction. There were few differences between the exhibitions, because most time was spent with companions around all artworks. Around the mobiles there was a bit of time spent in interaction with the guards as well. At the Saraceno exhibition 100% of the time that subjects spent near the spheres or on the pillow-section in interaction was with their companion(s), there was no interaction with other visitors. On the net this percentage is different; 20,9% of the time spent on the net in interaction was with other, unknown visitors. Although the differences were not significant, this result is nonetheless noteworthy, also because most time was spent on the net by the subjects. In chapter 2 I referred to Saraceno's explanation of the behaviors of visitors on the installation. He thought that the fact that the presence of visitors evoked different degrees of tension on the net, through which participants could sense other visitors' presence, could stimulate interaction. From the results it becomes clear that there was at least more interaction with unknown visitors on the net than was the case on the pillow-section or with the spheres.

There was no time spent in interaction with the guards for all three elements of the installation, however this can be explained by the fact that my observations took place while people were on the installation. I did not do observations on people that were waiting in the queue or that just came of the net, except when subjects left the installation during the period of observation. The guards were present in the changing area and on the balustrade, but not actually inside the installation.

5.5 Relations between social behaviors of visitors

Initially my idea was to present the results of the social behaviors of visitors in relation to the artwork, because I am interested in how the different types of artworks influenced the behaviors of visitors. But information on possible relations within the categories of social behaviors is relevant too. Here, I will shortly outline the outcomes of the activities of the visitor, in relation to their facial expressions, verbal and nonverbal interaction. Then, I will go into possible relations between the facial expressions and verbal- and nonverbal interaction. Finally, I will address possible relations between verbal and nonverbal interaction. I used the data from the original file (not aggregated) to analyze the different behaviors. The moments or intervals in which the behaviors were shown were in this case the units of analysis. Again, I also refer to the most important correlations that were established.

5.5.1 Activities of the visitor in relation to their expression and (non)verbal interaction

An overview of the results of the total time spent on facial expressions, verbal- and nonverbal interaction of subjects while being occupied with a specific activity is shown in table 5.10. At the Calder exhibition there was a quite uniform distribution in behaviors recognizable. There was a bit of difference in case of verbal interaction: of the total time spent on standing and walking, quite a bit of time was spent whispering (31,2%, 26,9%) and talking (10,5% and 9,6%). When the subjects were reading or sitting these percentages were significantly lower. Among all categories, the percentages of time spent without nonverbal interaction were large, one exception was formed by the total time spent on sitting down, 10,3% of that time was spent having direct eye contact with a companion. Almost all time spent on activities was with companions.

Table 5.10 Total time spent on activities in relation to facial expression and interaction, per exhibition

| | | Facial expression | | | Verbal interaction | | | Nonverbal interaction | | | | | (un)known person | | |
|----|-----------|-------------------|-------|-------|--------------------|---------|-------|-----------------------|-------|---------|-------|-------|------------------|-------|-------|
| | | serious | smile | laugh | silent | whisper | talk | none | touch | gesture | hands | eye | known | unkn. | guard |
| C. | read | 97,8% | | 2,2% | 78,3% | 15,2% | 6,5% | 95,6% | | 4,4% | 0,0% | | 100,0% | | |
| | walk | 91,3% | 4,1% | 4,6% | 62,2% | 26,9% | 10,5% | 90,3% | 2,3% | 4,1% | 1,4% | 1,8% | 89,4% | 6,1% | 4,5% |
| | stand | 92,0% | 6,7% | 6,7% | 59,2% | 31,2% | 9,6% | 88,2% | 1,9% | 5,9% | 1,6% | 2,4% | 90,5% | 3,4% | 6,0% |
| | sit | 96,2% | 3,8% | 3,8% | 82,1% | 16,7% | 1,3% | 89,7% | | | | 10,3% | 100,0% | | |
| S. | walk | 66,9% | 27,6% | 5,5% | 71,3% | 0,6% | 24,3% | 81,2% | 1,7% | 2,2% | 8,3% | 6,6% | 100,0% | | |
| | stand | 66,9% | 29,1% | 4,1% | 52,0% | 2,0% | 42,6% | 72,6% | 2,7% | 10,3% | 4,1% | 10,3% | 87,8% | 11,0% | |
| | sit | 63,8% | 30,5% | 5,7% | 68,8% | | 30,6% | 76,9% | | 6,3% | | 16,8% | 59,3% | 40,7% | |
| | lie down | 53,1% | 43,8% | 3,1% | 42,5% | | 52,5% | 96,9% | | | | 3,1% | 82,6% | 17,4% | |
| | crawl | 82,2% | 15,9% | 1,9% | 81,9% | | 17,2% | 94,5% | | 0,9% | 1,8% | 2,7% | 76,0% | 24,0% | |
| | touch art | 73,3% | 26,7% | | 60,0% | | 40,0% | 93,3% | | | | 6,7% | 100,0% | | |

The bottom half of the data in the table 5.10 is dedicated to the behaviors of visitors at the Saraceno exhibition, where more differences between the categories became evident. In the relation between the time spent on activities, it was notable that while being occupied with crawling or touching the art, most time was spent looking serious, while in case of lying down more time was spent smiling. In case of verbal interaction, a larger percentage of time was spent talking (52,5%) than in silence (42,5%) when subjects lay down, while a significant higher percentage of time was spent in silence (81,9%) while crawling. This was further established by a positive correlation between crawling and a serious expression and a negative correlation between crawling and smiling. There was also a positive correlation between crawling and silence. Visitors that were crawling on the installation, an activity that did not occur at the Calder exhibition, were possibly a bit unsure in their movement: the net structure was not fixed. It might be the case that subjects were crawling, because they found walking too difficult or scary, leading to more focus on their movements on the net than on communication.

The differences in time spent on activities in relation to nonverbal interaction were quite small. The activities of standing and sitting stood out, because a somewhat higher percentage of time was spent on nonverbal interaction, mostly on gesturing. There was a negative correlation between the activity of walking and direct eye contact, as well as standing and eye contact. Perhaps subjects had to focus on their movement and balance on the net and could therefore not direct their attention to others. That could make sense because there was a positive relation between the activity of sitting down and eye contact, and a negative correlation between the activity of sitting down and no nonverbal interaction. Sitting down seemed to evoke more nonverbal behavior in general, maybe because subjects were not so occupied with keeping balance on the moving net.

Finally, there were some differences in time spent on activities in relation to interaction with (un)known visitors. In case of walking and touching the art 100% of the time that subjects spent interacting with each other was dedicated to their companions. This forms a contrast with the activity sitting, where only 59,3% of the time spent on interaction was with companions, while 40,7% of the time was spent with other visitors. Perhaps, visitors spent more time interacting with unknown visitors, because sitting required less focus on maintaining a physical balance on the net structure.

5.5.2 Facial expressions of visitors in relation to their interaction

Table 5.11 offers an overview of the percentages of time spent by subjects with a certain facial expression in relation to their verbal- and nonverbal interaction and in contact with (un)known visitors. At the Calder exhibition, from the total time spent by subjects with a serious expression, 67,7% was spent in silence, while in case of smiling only 8,1% of the time was spent quiet, while 70,3%

was spent whispering. In case of a serious expression, most time was spent without nonverbal interaction with 96,2%. In case of the time spent laughing the division of time spent on verbal interaction differs again, namely 50% of the time was spent talking. For smiling and laughing, respectively 15,6% and 21,4% of the time was spent on direct eye contact.

These results were further established by a positive correlation between looking serious and no verbal interaction (silence), as well as looking serious and no nonverbal interaction. There was a positive correlation between smiling and whispering, as well as between smiling and gesturing, and smiling and touching someone. In addition, there was a positive correlation between laughing and holding hands. These connections between the facial expressions and (non)verbal interaction also return in the form of negative correlations. There was a negative correlation between a serious facial expression and whispering, as well as between the facial expression smiling and silence, and between smiling and no nonverbal interaction. So, if subjects had serious expressions this was related to their silence and lack of nonverbal interaction, where in case of subjects who were smiling, this coincided with both more verbal- and nonverbal interaction. These results could potentially indicate that a serious approach of the artworks, shown by serious facial expressions, led to fewer conversations and less nonverbal interaction. At the same time, a more enjoyable experience as expressed through the smiling of visitors could lead to more interaction (or vice versa). This is interesting in the light of my research, because as stated in chapter 2, museum professionals feared that the amusement in the museum or elements aimed at fun might be at the expense of the discussion of the artwork (Balloffet ea. 2014). In the case of the Calder exhibition, there was no amusement, but the combination of smiling with conversations and nonverbal behavior does indicate that discussion does not always have to be accompanied by a serious or restrained attitude. Interestingly, there was also a positive correlation between laughing and interaction with unknown visitors. This is notable because at the Calder exhibition there were only a few subjects that spent time laughing; this time was thus often related to interaction with visitors that were unknown.

Table 5.11 Total time spent on facial expressions in relation to interaction, per exhibition

| | | Verbal interaction | | | Nonverbal interaction | | | | | (un)known person | | |
|----------|---------|--------------------|---------|-------|-----------------------|-------|---------|-------|-------|------------------|-------|--------|
| | | silent | whisper | talk | none | touch | gesture | hands | eye | known | unkn. | guards |
| Calder | serious | 67,7% | 25,3% | 7,1% | 96,2% | 1,2% | 3,6% | 0,6% | 2,0% | 94,2% | 1,9% | 3,8% |
| | smile | 8,1% | 70,3% | 21,6% | 51,4% | 8,1% | 18,9% | 10,8% | 10,8% | 88,9% | | 11,1% |
| | laugh | 36,5% | 12,5% | 50,0% | 46,7% | 6,7% | 13,3% | 6,7% | 26,7% | 45,5% | 45,5% | 9,1% |
| Saraceno | serious | 76,2% | 0,9% | 20,5% | 89,0% | 0,6% | 3,9% | 1,7% | 4,8% | 81,6% | 17,6 | 0,7% |
| | smile | 46,4% | | 50,8% | 70,0% | 1,7% | 5,6% | 7,2% | 15,6% | 83,9% | 16,1% | |
| | laugh | 25,0% | | 75,0% | 57,1% | 7,1% | 7,1% | 7,1% | 21,4% | 94,4% | 5,6% | |

The table shows remarkable differences between the times spent looking serious, smiling and laughing and the different forms of interaction at the Saraceno exhibition. A similar spread as was the case for the Calder exhibition becomes evident. While most time that the subjects spent looking serious was spent in silence (76,2%), most time that subjects were smiling or laughing was spent talking, respectively 50,8% and 75,0%. There was a positive correlation established between smiling and talking and between talking and gesturing. There was a negative correlation between a serious expression and talking and between silence and gesturing. For the time spent in interaction while having a certain facial expression, almost all time was spent with known visitors. There was a positive correlation between talking and interaction with a companion, and between gesturing and interaction with a companion.

5.5.3 Verbal interaction of visitors in relation to their nonverbal interaction

Table 5.12 offers an overview of the total time spent on verbal interaction in relation to nonverbal interaction and interaction with (un)known visitors. At the Calder exhibition, from the time spent in silence, 98,5% was spent without nonverbal interaction, this was just 74,6% and 69,4% in case of whispering and talking. There was a positive correlation between no verbal interaction and no nonverbal interaction. In case of whispering and talking, most time spent on nonverbal interaction was occupied gesturing (9,3%, 21%) or making eye contact (7,8%, 8,1%). In case of silence and whispering, most time that was spent on interaction was with companions, with 90% and 97,6%. The percentage of time spent with companions in case of talking was a bit lower with 75,9%.

Table 5.12 Total time spent on verbal interaction in relation to nonverbal interaction, per exhibition

| | | Nonverbal interaction | | | | | (un)known visitor | | |
|----------|---------|-----------------------|-------|---------|-------|-------|-------------------|-------|-------|
| | | None | Touch | Gesture | hands | eye | known | unkn. | guard |
| Calder | Silent | 98,5% | 0,9% | 0,4% | | 0,2% | 90,0% | | 10,0% |
| | Whisper | 74,6% | 3,6% | 9,3% | 4,7% | 7,8% | 97,6% | 0,8% | 1,6% |
| | Talk | 69,4% | 1,6% | 21,0% | | 8,1% | 75,9% | 12,1% | 12,1% |
| Saraceno | Silent | 89,5% | 0,9% | 1,1% | 2,5% | 6,0% | 58,8% | 41,2% | |
| | Whisper | 25,0% | | 75,0% | | | 100,0% | | |
| | Talk | 70,7% | 1,9% | 9,6% | 5,8% | 12,0% | 90,8% | 8,7% | 0,5% |

At the Saraceno exhibition the largest difference was that while in case of silence and talking most time was spent without nonverbal communication, in case of whispering by far most time was spent gesturing (75%). I cannot directly explain these differences, but I can put this result a bit more in perspective by noting that hardly any whispering took place at the Saraceno exhibition.

5.6 Summary

The most important outcome of the observations at the Calder exhibition was the composed attitude by visitors: their facial expressions were serious, visitors kept either silent or were whispering, there was hardly any nonverbal interaction and the variety of activities was mostly limited to standing and walking. The little interaction that did take place remained on a quiet level and was aimed at companions and not at unknown visitors. Most time was spent with the mobiles and sculptures, followed by the documentary film and paintings. But the interaction was not particularly related to these artworks. The close position that visitors kept to the sculptures could potentially indicate more involvement with these artworks. Surprisingly, it seemed that the texts in the exhibition space evoked the most interaction. Quite a bit of time was further spent near the texts smiling and laughing and holding hands or linking arms. Further, a correlation was shown between the time spent per subject looking serious and a lack of verbal- and nonverbal interaction, as well as a positive correlation between the time subjects spent smiling and the time spent whispering and nonverbal interaction. It is notable that when the subjects of observation were laughing, this was related to interaction to unknown visitors.

At the Saraceno exhibition there was more variety in activities, a bit more interaction with unknown visitors, and although a serious facial expression was still most common, visitors were smiling a bit more and there was (almost) no whispering. Visitors were either silent or spoke out loud. However, the nonverbal interaction at the exhibition was limited. The variety of activities also included crawling, lying down and touching the art, but most time was spent walking, standing or sitting down. Again, there was a correlation established between a serious expression and a lack of verbal- and nonverbal interaction. In addition, there was a correlation between smiling, talking and gesturing. The interaction that took place at the installation could be more related to specific elements: visitors spent notable more time at the pillow-section with nonverbal interaction. On the pillow-section it was noteworthy that more time was spent smiling, laughing, holding hands and lying down. Most time was, however, spent on the net structure, with a similar division of time spent on the three different levels. Here, visitors displayed a wider variety of physical activities. It was notable that, while visitors were on the net, quite some time was spent interacting with unknown companions.

Chapter 6: The relation between the experience of museum visitors and the spatial set-up of the exhibition

In the former chapter, the results of the participatory observations were analyzed for insight in the social behavior of visitors. In this chapter, I will analyze the results of the semi-structured interviews I conducted on the experiences of the visitors of the exhibitions *Avant Garde in motion* and *In Orbit*. The experiences of the museum visitors will be related to the spatial set-up of these exhibitions. I will address the following sub-question: *How do the different elements of the exhibitions In Orbit and Avant Garde in motion affect the experience of visitors?*

In order to answer this question, I will first elaborate on the process of interviewing and the selected group of respondents. Then, I will separately treat the different topics that were treated during the interviews: conversations with other visitors, physical and emotional involvement with the exhibition, the environment and set-up of the exhibition, and the process of signification to the art. In my analysis, I will use direct quotations from the respondents to get a close view on the visitor experience.

6.1 Conducting the interviews

I have conducted semi-structured interviews. This means that, using a topic list and a number of questions on hand, I interviewed the respondents, with the possibility to inquire further after answers that I found relevant. The order in which the topics were treated during the interviews for the Calder exhibitions was kind of similar. I noticed that respondents found it quite difficult to talk about the feelings or emotions they experienced, therefore I chose to address this at the end. In the case of the Saraceno interviews, however, the respondents brought up their emotions right at the beginning. The main topics were related to the experience of the visitor on social exchange with other visitors, participation, and the set-up of the exhibition. These concepts I derived from my theoretical framework, as described before. At the beginning of the interviews, I asked the visitors some general questions about age, education and companions and informed about their overall impression of the exhibition. The complete version of the prepared interview list is included as appendix D. I conducted ten interviews per exhibition, which made a total of twenty interviews. Some interviews were with one visitor, but in case visitors came to the exhibition with companions sometimes a companion joined the conversation. The interview was of voluntary nature and because of the length of the interview - an average of 25 minutes- I thought it was more inviting for visitors to participate on the interview together, allowing them complement each other. I also worried that visitors might refuse to participate when they heard that their companion needed to wait half an hour for them. I did not

treat the duos in my analysis as two separate respondents, but as one, where I named the first person the respondent and the other one the companion. The interviews took between 17 and 40 minutes, leading to a total of more than eight hours of interviews. The interviews that I conducted with two or more visitors took more time than the interviews with solo respondents. The selection of the respondents was based on a few criteria that I set up. The desired number of female respondents aged between 20 and 30 was not met. At the Calder exhibition, there were very few young people on the days I conducted the interviews. I therefore had to widen my criteria to both male and female respondents aged between 20 and 40. The interviewed respondents were from Germany, but they could speak English. The interviews were conducted in English, with one exception were a respondent talked Dutch (Dutch husband and work in the Netherlands). I translated the interview to English and referred to the original phrases in footnotes. Some of the interviewees struggled with the English language, in that case the help of the companion was welcome, because he or she translated certain expressions. The pronunciation of English words was a bit different, for most interviewees the German accent was recognizable. I did not include signs to mark that words were pronounced differently by the respondents, because of the high frequency. I looked for respondents with different compositions of companions: solo, with one companion and with multiple companions. I did not interview people with more than four companions, because of the complexity. With some interviews, especially at the Calder exhibition, the companions who joined the respondent for the interview did not fall into the selected age categories. Because of the low number of young visitors at the Calder exhibition and the time pressure, I decided to conduct these interviews nevertheless, but refer to the younger person as the respondent.

I tried to interview similar respondents for the Calder- and the Saraceno exhibition, but in practice there were some differences. The two tables below give an overview of the respondents from both exhibitions. Table 6.1 displays the division of respondents across both exhibitions in terms of gender, number of companions and age. Table 6.2 distinguishes the individual respondents per exhibition. The first columns of both tables refer to the individual number of the respondent. The second, third and fourth columns display the gender and age of the respondent and the number of companions with whom the respondent entered the exhibition respectively. In the fifth column, I indicate whether I interviewed the respondent alone (0) or with one companion (1). In the next column I display whether the age of the companion interviewee is comparable to that of the respondent or that it differed. This is followed by the gender of the companion and his or her relation to the respondent.

Table 6.1 Interview respondents

| | Gender | | No. of companions | | | Age | | | | Total |
|--------|--------|--------|-------------------|---|-----|-------|-------|-------|-------|-------|
| | Male | Female | 0 | 1 | 2-4 | 20-25 | 25-30 | 30-35 | 35-40 | |
| Calder | 4 | 6 | 2 | 6 | 2 | 2 | 2 | 3 | 3 | 10 |
| Sarac. | 4 | 6 | 0 | 6 | 3 | 3 | 2 | 4 | 1 | 10 |

Table 6.2 Individual respondents and companions Calder exhibition

| | | Gender | Age | Companions | +Interviewees | Age | Gender | Relation |
|----------|----|--------|-----|------------|---------------|---------|--------|----------|
| Calder | 1 | female | 25 | 1 | 0 | | | |
| | 2 | female | 39 | 1 | 0 | | | |
| | 3 | female | 24 | 1 | 1 | similar | female | friend |
| | 4 | male | 37 | 3 | 0 | | | |
| | 5 | male | 22 | 0 | 0 | | | |
| | 6 | female | 35 | 1 | 1 | older | male | father |
| | 7 | female | 34 | 0 | 0 | | | |
| | 8 | male | 27 | 1 | 0 | | | |
| | 9 | male | 31 | 1 | 0 | | | |
| | 10 | female | 33 | 3 | 0 | | | |
| Saraceno | 1 | female | 38 | 1 | 1 | similar | male | partner |
| | 2 | female | 31 | 1 | 1 | similar | male | partner |
| | 3 | male | 27 | 1 | 1 | similar | female | partner |
| | 4 | male | 20 | 4 | 1 | similar | female | sister |
| | 5 | female | 34 | 1 | 1 | similar | male | partner |
| | 6 | male | 34 | 1 | 1 | similar | female | partner |
| | 7 | male | 28 | 1 | 1 | similar | female | partner |
| | 8 | female | 22 | 1 | 1 | similar | male | partner |
| | 9 | female | 22 | 3 | 1 | similar | male | partner |
| | 10 | female | 33 | 2 | 1 | similar | female | friend |

In case of the Calder exhibition eight out of ten interviews were conducted with one respondent and no companions that joined the interview. In two cases the companion with whom the respondent visited the exhibition joined the interview. In one interview, the companion was a friend of a similar age, in the other instance the companion was the father, he was distinctively older. In case of the Saraceno exhibition, each respondent was joined by one companion during the interview. All these companions had a similar age to the respondent and most of them were the partner of the respondent. In one case, the companion was a friend and in another case a sister.

Once the interviews were conducted, I transcribed the recordings. I coded the transcripts in *ATLAS.ti*. I used the method of open coding and then assigned the codes to different categories. The categories were derived from the topic list of the interviews. I used the coded documents in the analysis of the interviews. Finally, I compared the responses of the different visitors to track down possible relations between the answers of respondents. However, there was no clear patron of

reactions, or relation between the profiles of the respondents and their reactions. It was notable at both exhibitions that the answers of two respondents showed some similarities, but the similarities were difficult to interpret; these particular answers were shared by many respondents and the profiles of the two respondents differed quite a lot. However, I refer twice in this chapter to other similarities between the reactions of respondents.

6.2 Conversations between visitors

This paragraph is related to the section of the interviews about the conversations of respondents during their visit. There is a division between the conversations that took place with companions, the conversations with other unknown persons (including employees of the museum), and the view of respondents on how the exhibition elicited conversation.

6.2.1 Conversations with companions

From the twenty interviewed respondents, eighteen were visiting the exhibition with one or more companions. All of these eighteen respondents stated that they had been talking to each other while visiting the exhibition. Two of the respondents from the Calder exhibition visited the museum without companions and did not talk to known visitors. In most cases, the topic of the conversations from the respondents and their companions was related to the exhibition, except for one respondent from both exhibitions (resp. 2 Calder, resp. 2 Saraceno). Both respondents explained the private nature of their conversation by the fact that they lived in Düsseldorf and were known to the exhibition: “Yes, but mostly private, not about... because we all had the art card? It’s a card where you pay an amount of money and then you can go free for a year in all museums in Düsseldorf ... ” (Calder, resp. 2). The conversations of the respondents that were related to the exhibition were of a different nature. In my coding scheme I distinguished different topics.

Table 6.3 Topics of conversation

| | associations | background | design | meaning | feelings | visual look | set-up exhibit | actions people | own art | encourage |
|--------|--------------|------------|--------|---------|----------|----------------|-------------------|-------------------|------------|-----------|
| Calder | 3 | 2 | 2 | 3 | 2 | 4 | 7 | 0 | 2 | 0 |
| Sarac. | 0 | 1 | 0 | 0 | 6 | 0 | 1 | 2 | 0 | 6 |

Respondents of the Calder exhibition

The respondents of the Calder exhibition talked mostly about the set-up of the exhibition, the visual look of the artwork, the meaning of the artworks and the associations that the artworks evoked, as shown in table 6.3. Further, the construction of the artworks, the historical background-, and the

desire to own the artworks were also discussed by a few respondents. The way the exhibition was arranged was discussed by seven out of ten respondents. They commented on both the general layout of the exhibition space as well as on particular aspects of the arrangement, like their amazement over the different shadows that the artworks cast on the ground because of the lighting. One respondent for example explains: "Then we talked about the shadows that they created on the walls and on the floors, and on the colors they used: the brown and red tones in combination with the black" (Calder, resp. 9). Another respondent discussed how the artworks were exhibited: "[W]hat I just said, it's a product-exhibition, that the product is the object that only stands in the room and that there are little comments around it" (Calder, resp. 10). The discussions on the arrangement of the exhibition space were often related to the actual look of the artworks as the first quote showed. "She tried to explain to me that it's just, yeah that it's a composition. It's a composition and that it's really interesting how it moves, with the different sounds and the different shapes and the different colors" (Calder, resp. 3), said another respondent. Particularly, the shape and composition of the mobiles were heavily discussed. Next to that, the balancing of the weight of the mobiles was discussed as well:

"Yeah, we also were discussing the technical, uh, art he made the pieces with. Like balancing it, putting the wires in just the right place, the loops and the wires, so that the balance was the [...] I shared that with my parent sort of so they could see the balance: how it is this way, and the twist in the wires there and of the shape." (Calder, resp. 4)

The conversation had a very technical nature: the relation between the wires and the loops of the mobiles were analyzed. Most of the conversations of the respondents seemed to be quite technical and relied heavily on the visual observations of the respondents, discussing the compositions, balance and shapes of the artworks and the placement of the artworks in space. The organic shape of the artworks elicited associations by several respondents with nature and with animals, this was more related to the individual experience of the visitors:

"It was for example this one sculpt, it was really different forms. I think was clean, pure and another was, had.. a bird, I think. Three forms, they were totally different, they had nothing that was.. In common, but they were.. They were all connected with each other. And then I had said if you can transfer it to the persons, it is we had total different persons around and we have total different friends, we have.. uh.. different ages, tastes also." (Calder, resp. 3)

This shows how respondents translated visual impressions of the artworks into their own associations, followed by signification to the art. The association with the shape of a bird led to a more

philosophical reflection on how people could be related to each other. So there were different topics discussed. Further, I asked the respondents if they felt like the art elicited conversation. This was the case for four respondents.

“[T]hat we are not able to make wind inside, that evokes conversation. Another thing is about the object, that they evoke conversation. Yeah I think, because they start ... especially these objects in their abstraction, they start a way of, of the imagination. You talk about your impression of the objects and the imagination that you have.” (Calder, resp. 9)

In this case, the enticement of conversation was related to the specific art: on the one hand the desire to create air flow with the mobiles, and on the other hand the abstract shapes. Another respondent felt compelled to talk because she thought that her associations needed to be shared, while others felt compelled because of the different nature of the art compared to paintings or because of the feelings they experienced. “Yeah, because they are in a positive mood, I think, because nothing brute is shown [...] you are in a very good mood and maybe this is why you talk to others, that you are saying: oh that’s wonderful” (Calder resp. 7). Another respondent did not feel particularly enticed by the artworks to talk, but had the idea that she could also not be silent the whole time: “I think if you go to an exhibition together [...] then you want to speak a bit, at least a bit about what you saw at the exhibition” (Calder, resp. 8 comp.). The enticement of the conversations was in this case not particularly related to this exhibition. Further, there were a few respondents who did not feel that exhibition evoked conversation at all.

“[B]ecause there are no questions, there are no, for, for me it’s not that I have to say: Oh I don’t understand it or, oh it’s ugly or something like that. I don’t need to talk to others, because I wouldn’t say: Oh, I don’t like it, or what did the artist mean?” (Calder, resp. 7)

This was a different respondent than respondent 2 who had only held private conversations. Another respondent felt less likely to talk for a completely different reason. “Uhm, I guess, but since it’s a huge hall - which the objects need - the discussions has to maintain on a very silent level. You have quite an echo ...” (Calder, resp. 4). The need to keep the conversations silent corresponds with the results from observations that showed that visitors of the Calder exhibition were either silent or chose to whisper. The quote above might explain this, as the size of the hall caused an echo. However, the hall of the Saraceno exhibition was large as well. So, it might not only be allocated to the space, but to the standards that were applied by the visitors, as well.

Six of the respondents said that talking to their companion gave them new insights. The different view of companions was mostly appreciated.

“I asked her often how she understand the art, because I’m not really into art. I just came with her because she was really interested, and I just like new things, new things to look at. And I think it’s, all for me, it’s very aesthetic, but I like to .. uhm.. to know, to hear her view. How she sees it. She’s a lot more like interpreting all the things and things of how can you transfer it to people, behavior and people, relationships and stuff. And I’m not this deep thinking about it.” (Calder, resp. 3)

This respondent was thus informed by her companion, exchanging the experience and view on the artworks. In another case the new insight came from information of the companion:

“My father is now already 82 and he had already visited an exhibition in 1942, also in Dusseldorf, no in Krefeld, in Krefeld, sorry, and there were mobiles in movement and you could even touch them. So you were invited as a visitor to actually set them in motion, as Calder actually intended. And that helped me, so more from a personal experience of the people. [...] That is why I just said that, my father who has enormous background information, who is such an encyclopedia.” (Calder, resp. 10)

Two respondents visited the exhibition solo and therefore did not answer this section of the questions. Two other respondents, however, stated that the conversation did not change their view on the artworks. According to them, the artworks needed no explanation and conversations were not contributing. Those two were not the same respondents as the ones that stated that the artworks did not evoked conversation. One of the respondents (resp. 2) who did not feel that the conversation changed her view on the art, was also the respondent that indicated that her conversations were of private nature, not related to the exhibition itself. The other respondent stated:

“The objects are that what you see and that’s your understanding, so you don’t.. In my opinion: you don’t need to talk to understand the objects. However, we talked a little bit about the, if they are close to.. if they are derived from natural aspects, natural forms or uhm, I don’t know, tree-like shapes, something like this. But I, this was not about the understanding of the object. The objects itself or the exhibition was understandable.” (Calder, resp. 9)

This view seems opposite to Bourriaud’s (2002) idea about relational art. This respondent felt that talking was not necessary to understand the art, while Bourriaud (2002) believed that provoking

conversation was the main purpose of relational art: talking contributed to the individual assignment of meaning to the work. There were several respondents who did feel enticed by the artworks to talk, corresponding to Bourriaud's view.

Respondents of the Saraceno exhibition

At the Saraceno exhibition, the most talked about topics were the own feelings of the respondents and the encouragement of the companion. Both topics were discussed by six out of ten respondents, which is quite a lot. It was notable that both topics were discussed by the same respondents. A few other respondents talked about the actions of other people, the historical background of the art and the set-up of the exhibitions. The construction and visual look of the installation, the associations and interpretation of the meaning of the art – dominant topics at the Calder exhibition – were not brought up at all. So, there were some notable differences recognizable between the conversations of respondents from the Calder- and the Saraceno exhibition. The range of topics discussed among respondents of the Saraceno exhibition was much smaller.

The experience of entering the installation *In Orbit* was central in the conversations, most visitors talked about the fear or uncertainty they experienced. One of the respondents commented that their conversation focused so much on the experience that the artistry of the work was left completely out of it. In this quote the letter 'C' indicates the phrases of the companion, while the letter 'R' refers to the comments of the respondent.

C: "Yes, it was about the height and how far you want to go and he said: come, come, come, I will help you to go on."

R: "Yeah, we, we acknowledged the thing, like a *herausforderung*..."

C: "Challenge"

R: "Like a quest, like a challenge. And then we talked about it like it was a challenge, not like it was art". (Saraceno, resp. 4 + comp.)

The quote further shows that the visitors were encouraging each other in their movements on the installation, which happened more often. The nature of these conversations was mainly aimed at gaining trust. Two respondents were not just focused on their own experience, but also commented on the actions of others: "That was the interesting part, that we started talking about the people up there and so: Oh look, he looks like a scientist, or what is she doing, and look she's walking crazy and he's walking very comfortable, and so ..." (Saraceno, resp. 3). The general aim of the conversations was thus more about commenting, encouragement and sharing feelings and not about signification, as the quote of respondent 4 nicely indicated.

Most respondents did feel that the installation elicited conversation, the unusual experience of being on the installation was the reason for this.

“And I just said that the experience which is not from every day experience like you don’t walk on the street. It is a really dangerous looking over the deep height. [...] Yeah, it’s a difference of walking than on the street, it’s something that you have in common and you get a bit more chatty or talk passing to other people and you just talk about that.” (Saraceno resp. 6)

Another respondent acknowledged that the uniqueness of the (physical) experiences incited him to talk as well. “But I don’t know what kind of conversation. If it’s only an adventure conversation or that it’s about, more like communication, how to feel in this world, with the sky. I have no idea, actually, but it’s kind of spectacle...” (Saraceno resp. 2). It seemed that particularly the spectacle of the installation enticed visitors to talk. Further, the actions of other visitors and the set-up of the exhibition evoked conversations.

C: “Because you share uhm, an experience, like an experience of insecurity or I don’t know it’s a different way of moving, it’s completely new to someone. You have to get used to the way you move and that’s why you communicate, I guess [...]”

R: “Yeah, yeah and, and you’re connected to everybody absolutely in this net. You’re physically connected with everybody, so.. so, so we were lying in the pillow and a person came who was not feeling such comfortable and you feel it!”

C: “[...] and the suit, it all, it’s, that’s also good to start a conversation because everybody has the same suit and everybody is in the same situation. [...] Yeah, the clothes, so you don’t even know how everyone look in reality. You’re all the same, you are all a part of the exhibition.” (Saraceno resp. 2 + comp.)

The enticement of the interaction was not just verbal, as was brought up in the quote above, the sensing of other people through the tension of the net encouraged nonverbal communication. “Yes, there is communication between me and the other people, because I, I feel, uhm, or I sense it, [...] It’s like radio wire or not wires but; how is it called, maybe Strahlung?” (Saraceno resp. 4). There were several respondents who did not feel compelled to talk at all. One of the respondents reacted: “I think it contradicts that, uhm, you only have, can, can, less than ten people at the same time. So, hm, it doesn’t foster it; communication.. verbal communication” (Saraceno resp. 4). The lack of need to talk was by others explained by the unique physicality of the experience:

C: “Especially the first time. The first time that you’re in there and then you don’t know about the different layers and where you have to go [...] so it’s a bit self-focused. [...] First you don’t feel very secure. So you don’t want to make a mistake and try to concentrate on yourself.”

R: “You have to get used to what you’re doing and how you have to walk and, uhm, this is all about experiencing your environment and then this is not much about visualizing where are the other people and so it’s a bit yeah.. a close area, I would say.” (resp. 10 + comp.)

This clarification of being self-focused was given by different respondents. It might also explain why only few respondents felt that the conversation gave them new insights. The conversation did not give a new perspective on the installation in a cognitive sense, but the conversation provided more of a feeling of safety, one respondent stated. Another conversation was mainly focused on finding the way on the installation. “No, I think, for me it was: how did you get up there, and where do I have to go now, and which way shall we go now? [...] [E]verything is moving and ‘haha’ this is really awkward ...” (Saraceno resp. 10). The respondent suggested that the conversations were focused on the direct experience of physically being on the installation. Further reflection on this experience seemed to be limited.

There were some notable differences between the conversations of respondents from the Calder- and the Saraceno exhibition. The conversations among respondents of the Calder exhibitions had a more technical and observational nature, but individual associations and the possible meaning of the artworks were discussed as well. The conversations that took place at the Saraceno exhibition were more aimed at the personal experience of the respondents: the feelings of the visitors and the encouragement of each other. This subjective nature of the conversation remained, however, on an emotional level, a connection between the personal experience and signification to the art was not made. The conversations therefore did not provide new insights.

Several respondents of both exhibitions indicated not to have been enticed by the art to talk. At the Calder exhibition this was because the art did not elicit questions for some, and the feeling to keep quiet for others, while at the Saraceno exhibition visitors were so focused on adjusting their movement to the installation that they forgot about their environments. This did not add up to the vision of Bourriaud (2002) where enticement of conversations forms the essence of relational art. For other respondents, however, the uniqueness of the (physical) experience was exactly the reason to have conversations. The physical accessibility of *In Orbit*, compared to *Avant Garde in motion* thus did stimulate conversation. This was different at the Calder exhibition where the conversations were evoked by the associations and feelings of the visitors.

As already shown from the observations, visitors at the Saraceno exhibition talked more out loud than visitors at the Calder exhibition. Bourriaud (2002) expected that relational art could lead to

more conversations between visitors, which was the case at the Saraceno exhibition. However, Bourriaud (2002) also envisioned a more active role for the visitor in giving meaning to the artwork through these conversations, yet this seems not to have been the case. While the visitors talked about their feelings and emotions, the subjective experience was not related to reflection on the artwork. The Calder exhibition, on the other hand, did stimulate visitors to talk about the interpretation of the work, but at the same time there were visitors who felt that conversations were not actually needed to reflect, since the artworks needed no explanation.

6.2.2 Conversations with unknown persons at the exhibition

Respondents of the Calder exhibition

The respondents from the Calder exhibition did not talk to other visitors. Just one of the respondents communicated with someone else, but this was just one remark about the shadows. She did not claim this as an actual conversation. A few respondents did, however, talk to the attendants that were overlooking the exhibition. While three respondents talked to one or more attendants, only one of the respondents stated that the conversation was related to the exhibition. In the other two cases, the respondents were notified either not to try to make wind in relation to the mobiles or a companion was told not to feed her baby in public. The third respondent was informed by the attendant about the names of the artworks and how the artworks were transported to the museum. This gave the respondent new insights, she had no background information before.

Respondents of the Saraceno exhibition

The situation was different at the Saraceno exhibition where eight of the ten respondents talked to unknown visitors, but none talked to the attendants. The conversations with other visitors were short, varying from the exchange of one or two sentences to a maximum of five minutes. Part of the communication that took place was nonverbal: "Ah, you smile to them or maybe talking to them. You laugh, but about yourself sometimes, but then the other one laughs with you" (Saraceno resp. 5). These conversations did not provide new insights to the respondents, but had a reassuring effect. All the talks were aimed at encouragement or advice. One couple, for example, was advised by other visitors to take off their pullovers, because of the heat. Other respondents said that they shared their insecurity or that they were advised by other visitors on how to move on the installation. The sense of security that interaction with other visitors provided was mentioned a few times.

"[I]t kind of gave me, uhm, secureness, because I know there are people they are watching me: okay, I'm still with them, so I'm not kind of outside their perception, anything like. Because, my feeling was out everything I experienced before. So, it was okay to talk to people who were still in the normal, in the real world." (Saraceno resp. 4)

This respondent talked to the people outside the installation, who were standing on the gallery. His companion adds that these people were encouraging them as well: "And they pushed you a little bit, feeling more brave or.. they said: Great that you're doing it!" (Saraceno resp. 4 comp.). These conversations were quite remarkable though, notices one of the respondents: "And you kind of started to talk to the strangers, that's not normal in Germany" (Saraceno resp. 3 comp.). According to this respondent, there were prevailing cultural norms that withhold people to talk to unknown others in this public sphere. The visitors were therefore breaking norms by entering into conversations with strangers. Bourriaud (2002) probably conceived the reticence in approaching unknown people as a product of the way public life was designed. The urban area knew certain cultural conventions that led to a limitation of social exchange. These conventions did not apply at exhibitions where relational art actually stimulated interpersonal relations. The encouraging way in which visitors at the Saraceno exhibition interacted with each other, could be perceived as an expression of this.

Differences between the exhibitions

There were some remarkable differences; there were no conversations with unknown persons at the Calder exhibition (corresponding to the results of the observations), indicating that visitors did not established new interpersonal relations. At the Saraceno exhibition, several short conversations took place. Despite the short time of the conversations, from the perception of Orbuch (2007) these exchanges between unknown visitors could be seen as a form of interpersonal relationships. He explained this term by the concept of interdependence: the behaviors of two or more participants influenced each other. The conversations at the Calder exhibition had a supportive nature. The respondents explained that the encouraging conversations helped them to feel safer and stimulated them to move further. Feeling the presence of other visitors through the tension of the net also reminded visitors they were not alone in their experience. In this way, the contacts with the other visitors had a clear influence on the respondents and could therefore be seen as a form of relational behavior.

6.3 The emotional and physical involvement of visitors with the exhibition

This part of the results is related to the section of the interviews that focused on the emotional and physical involvement of visitors with the exhibition. First, I will address the different emotions and feelings visitors experienced in relation to certain aspect of the exhibitions. This is followed by the physical reactions of the visitors. Finally, the limitations that visitors felt in their involvement with the exhibition are covered. Again, I made a distinction between the answers of respondents from the Calder- and the Saraceno exhibition.

6.3.1 The emotional involvement of visitors with the exhibition

Almost all respondents felt emotionally involved with the exhibition. At the Calder exhibition, there were three respondents who were unaware of their emotions during the visit. One said that she did not pay attention to her feelings, but mainly thought about whether she liked the art or not. For the other respondent, the lack of emotional involvement was due to the type of art. “With some other artists you have pictures that impress you due to the colors or something.. or make you feel warm or sad. Here it’s more the fascination with how it worked, how he made that work” (Calder resp. 4). This respondent thus had a more technical fascination, while the last one simply did not feel moved.

“Well it’s quite abstract art, so I’m not sure if you can speak of emotions. As I, for myself, I’m not a very emotional person. Uhm, it’s difficult. There’s a difference between the abstract sculptures and for example, eh, Ruben’s painting which is uhm.. overflowing with emotions. [...] The art is very reduced, the amount of different forms is very reduced and also the color and everything. So eh, the kind of, eh, thinking about these objects is also more abstract ...” (Calder resp. 5)

The respondent thus attributed his lack of emotional involvement to both his own character (not an emotional person) as well as the nature of the artworks, which was abstract. The emotions that the other respondents experienced varied greatly. I noticed during the interviews that it was quite difficult for the respondents to talk about their feelings. Respondents from the Saraceno exhibition told me straight off at the beginning of the interview how they felt entering the installation, while it took respondents from the Calder exhibition some time to think it over. In addition, the explanations of the respondents from the Saraceno exhibition were more elaborate, while visitors from the Calder exhibition reacted more reluctantly when I asked them a bit more about their emotions. In my coding scheme, I distinguished different emotional categories. From table 6.4 below, differences in emotions between visitors from both exhibitions become clear. The density of different emotions was higher at the Saraceno exhibition, which means that more respondents felt several emotions at a time. It is

notable that a similar group of respondents felt calm at both exhibitions. I compared the responses of the different visitors. It was notable at the Saraceno exhibition that the same respondents who experienced fear, experienced enjoyment and (most of them) courage as well.

I will address the responses for both exhibitions separately.

Table 6.4 emotional reactions of the respondents per exhibition

| | calm | courageous | disappointed | enjoyment | fear | focused | inspired | safe | stimulated | unaware |
|--------|------|------------|--------------|-----------|------|---------|----------|------|------------|---------|
| Calder | 3 | 0 | 2 | 7 | 0 | 0 | 4 | 0 | 1 | 3 |
| Sarac. | 2 | 7 | 0 | 9 | 10 | 1 | 0 | 8 | 3 | 0 |

Respondents from the Calder exhibition

At the Calder exhibition, the feelings of enjoyment, inspiration and calmness were mentioned most. In addition, one or two respondents felt stimulated by the exhibition or disappointed. Most respondents found it difficult to explain how this feeling was evoked, attributing their positive feelings to the beauty of the artworks, the ‘nice’ movement of the mobiles and the ‘nice’ exhibition. One respondent said that the exhibition gave her a ‘positive’ and ‘sophisticated’ feeling. When I asked what she meant, she kind of repeated her previous answer in very general terms: “it’s nice, a new experience. [...] It’s a joyful exhibition. So, it’s, it’s.. everybody likes movement and shadows, or something. It’s not that.. depressing, or something” (Calder resp. 2). It seemed quite difficult for the respondents to reflect on their emotions. There were a few respondents who were a bit more specific. A companion stated: “Perhaps because we have wintertime, but the white rooms make you feel...”, to which the respondent added: “[P]ositive, yes, it was the way the exhibition was built and created and uh.. That there’s so much space around the bigger mobiles, for example” (Calder resp. 6 + comp.). These visitors were an exception by relating the positive mood to the set-up of the exhibition space. Most feelings of enjoyment were elicited by the artworks. There were more respondents who described their emotions in a light and playful way, mostly evoked in the presence of the mobiles. “[M]ost of his objects are mobiles and so they, they also speak to the child in you. You want to play with them or you want to see how they play with you, and the reflections and things” (Calder resp. 4). The playfulness was related to another feeling that respondents experienced as well, namely inspiration and feeling tickled in their imagination. “Yeah, that you can imagine that things move on their own, because of these connections. [...] Oh, or I can imagine in the evening, when no one is there, that they [the mobiles and sculptures] are alive!” (Calder resp. 8 comp.). More respondents were inspired by the shapes of the artworks, describing their feeling as ‘dreamy’ or ‘inspired’, but, again, found it difficult to explain this.

Three of the respondents felt that the exhibition evoked a sense of calmness , they related this to the (gentle) movement of the artworks.

“You are yourself in a very fragile mood, I think. You are gentle and not.. Yeah it’s calming you, especially the mobile which was just, which was moved by the, uhm, the guard. Uhm.. in this moment I was on the stairs and I could see this from above. And there is something like, yeah, very calming: not hypnosis. First you are looking, you wait for sound and then you, when there are, when the movement isn’t that much you just look at it, and it calms, and it also calms you.” (Calder resp. 8)

All of these responses were very positive. However, there were two respondents who felt disappointed. They had hoped for more air movement in the exhibition, to do justice to the hanging mobiles. “[A]t the beginning I was really a bit angry, because there wasn’t too many people in there and there was no wind, none [laughs]. It seems somehow like a film: I see that there are three dimensions, but it’s not on.” (Calder resp. 10).

All in all, the emotional responses of the visitors were very positive: they experienced enjoyment, inspiration and calmness. It was, however, difficult for the respondents to explain their positive mood and some were stuck with words as ‘nice’, ‘beautiful’ and ‘feeling good’. There were three respondents who did not feel emotionally involved with the exhibition; although they appreciated the art, the abstract nature of it did not evoke any feelings.

Respondents of the Saraceno exhibition

At the Saraceno exhibition, the emotional reactions of fear, enjoyment, safety, and feeling courageous or proud were most common. Three respondents also felt stimulated or excited and one of the respondents felt focused. In all interviews, visitors indicated to have felt fear or insecurity while being on the installation. This fear was related to the combination of the height of the installation and the uncertainty of walking on a net structure that was moving and offered nothing to hold on to. The degree of fear differed, related to where they found themselves on the installation, the respondents explained: “... I was scared of the height and, uhm, the step where you have the floor here, and later on, you have no floor directly [...] under you [...]. I stopped and looked down, but I didn’t walk, oh, walked further on (Saraceno resp. 4 comp.). Sometimes, only the respondent or the companion felt fear, while in other case both of them felt anxious.

C: “Yeah it’s eh.. you feel very insecure? Because you are on the net and everybody, you feel every movement from everybody. So it becomes a really: okay let’s calm down. So, eh, you always get the feeling but eh.. after ten minutes it was better. It was great, but the first ten minutes was shaking [...] It’s like being on a boat, you first have to get the legs for it [laughs].”

R: “And you have to find the balance also in your mind and fixed ground also. So, I think, first you kind of have to get your brain into this movement.” (Saraceno resp. 9 + comp.)

The installation counted three layers of net and most respondents said they felt most fear when they had just one layer of net beneath them. The third layer of net was actually higher up in the building, but the extra layers provided a sense of security which outweighed the height. Next to the fear, respondents mentioned the feeling of security several times, which might seem strange. However, the respondents felt that on some areas of the installation the fear was more prevalent, while in other areas there was more trust. Two respondents explained that they were not bothered by fear, but actually felt quite safe in general:

“I thought I would have a bigger problem with the height. And I think it’s, eh, it’s, eh, kind of edgy height, so it’s – you’re gonna die, or something if it’s.. – so it’s, it’s the height that is high. [...] So, but, double or like 50 or 70 meters, that would be, that would change the situation. [...] So because, uh, for example we were at the Christo exhibition in Oberhausen [Gasometer building], and this was like a 100 meters or something. And to be in an elevator made of glass of 100 meters scared me more than this somehow.” (Saraceno resp. 3)

The fearless respondents attributed their lack of anxiety to prior experiences with height. One stated that he often climbed mountains, while the other regularly went into rollercoasters. However, most respondents admitted to feeling quite anxious and described that climbing into the installation felt kind of as a victory on themselves. Seven respondents said they felt courageous or proud by having entered the installation.

“So, you have the freedom to go to, to the nearer ground or the higher ground. You, you have the freedom if it’s too much fear or something, you can go there. And so you are able to dare, to risk something or.. it’s not a risk, but it feels like a risk and so, uhm.. Yeah, you have a kind of self-esteem or something that rises.” (Saraceno resp. 1 comp.)

This sense of battling the fear or overcoming the situation was perhaps related to a sense of stimulation and excitement that three respondents felt. One of the respondents commented that he was sorry to be back on solid ground, coming from the installation it was boring for him to walk around 'normally' again. Someone else described the excitement while being on the installation more in terms of a general alertness. Another person comments on the mixture of feelings that he experienced while being on the installation.

“It was always changing, because from, from fear and you have the eh, yeah vision that you are oh so high over the ground and, uhm, then you, you talk to yourself and you say: it’s safe, it’s okay. And then it was okay again, and then when you glimpse down, then it’s: Whoa! It’s an adrenaline shot and it’s a very different feeling, I think. [...] It was so like a black-and white experience, many different feelings when you are there.” (Saraceno resp. 1 comp.)

This range of feelings was pretty typical. While almost all respondents felt the experience was fearful, feelings of safety, excitement, pride and enjoyment were mentioned as well. The feelings of enjoyment that these respondents described were very different from the descriptions of respondents from the Calder exhibition. While the respondents of the Calder exhibition found it difficult to express themselves, the respondents of the Saraceno exhibition shared their feelings right at the beginning of the interview. A woman stated directly: “I’m so excited still, I just can’t calm down really [laughs]. [...] Yeah, excited, it was like entering the moon somehow, like *In Orbit*: very good title, I think” (Saraceno resp. 1). Where the visitors of the Calder exhibition found joy in the beauty of the artworks and the way the artworks were arranged, in this case it was the joy of an adventurous experience.

6.3.2 The physical involvement of visitors with the exhibition

All respondents from the Saraceno exhibition clearly felt physically involved. At the Calder exhibition, on the other hand, two respondents replied that they did not experience this. One said that she just thought that the art was beautiful and that it gave her a good feeling, while the other said that she did not think about being physically involved. As was the case with emotional involvement, respondents of the Calder exhibition had to think longer about their physical relation with the artworks and gave shorter answers compared to respondent of the Saraceno exhibition.

Respondents of the Calder exhibition

The respondents of the Calder exhibition felt physically involved with the art in a few distinct ways; through the movement of the art, the relation between the artworks and themselves, the different

perspectives on the art, and in the sense of a bodily awareness. Only one or two respondents further explained their physical involvement by the stimulation of the senses or the desire to reproduce the artworks themselves. Five respondents felt physically involved by the movement of the artworks: “Uhm, I think it’s very important that you are involved, because you are making wind. Not that much in this case, but, uhm, and, and when you are making wind, the art starts, the objects start to be art.” (Calder resp. 7). So, by walking through the exhibition space visitors created a little air flow, which gently set the mobiles in movement. For some visitors this interaction was too little however: “I have here also tried to, gently tried to put them in motion by pushing at them, but then I was right away quite, yeah, quite firmly addressed that it was definitely not allowed. I found that a pity” (Calder resp. 5). Both quotes indicate that the visitors felt related to the artwork, either because their movement had an indirect effect on the artwork, or because they wanted to affect the mobile more directly. This idea of feeling related to the artwork was brought up by four respondents.

“There is a relation between the objects and yourself [...] maybe feel like you’re just a small part of the whole thing, like that. [...] But you are there and so you just change the impression of the room as you are also an object between these other objects. That makes you feel like you’re a part of it.” (Calder resp. 5)

Other respondents basically said that walking through this particular exhibition was a different experience compared to an exhibition with paintings, because of the three dimensional shapes of the sculptures and the movement of the mobiles. Another respondent and his companion had a more playful view on their relation with the objects: “Yeah, we talked about a friend of us and she liked to imitate things outside [...] it’s a game. [...] [W]e could imagine that she would love to do it here, just to play the role of one of the sculptures...” (Calder resp. 8 comp.). The opportunity to see the works from different perspectives also created more physical involvement among respondents. In the middle of the Kleehalle there was an elevated walkway, so visitors could overlook the room from above and see the mobiles on eye level. In this way four respondents stated to have experienced more physical involvement:

“Actually the mobiles, they are in the room above you, besides you, everywhere. So you just move in between those objects which are, which can be seen in all directions. But also very well was the steps, so you go higher and you get another perspective on the objects.” (Calder resp. 5)

Finally, there were three respondents who indicated that they became more aware of how they felt physically: “Oh, I breathe free. My breath is free and my head is free, my senses.. (Calder resp. 1).

Respondents of the Saraceno exhibition

The descriptions of respondents from the Saraceno exhibition differed significantly. The physical involvement was not indirect as with the Calder exhibition, but instead very direct because the respondents could physically enter the installation. Eight respondents described the process of physical adaptation they experienced. One respondent had to get used to "... the trembling and shaking and not having solid ground beneath your feet" (Saraceno resp. 10). The unstable basis of the net structure that the visitors walked on required some adjustments in the way the visitors moved.

"I think, you have, there are two challenges. The first one is that you have to find your way and try to stand up and, uhm, come over your insecurity that you may fall down. And the other challenge is that [...] your brain and your inner balance or something, you have to find when you walk."
(Saraceno resp. 9)

In relation to this process of physical adjustment, four respondents mentioned the different physical challenges that the installation offered.

"But there are some challenges, especially if you go to this, uhm, to the pillows. You don't have anything where you can put your hands on. You just have to stand on your own feet, and then walk to it and you don't have any, yeah, things or whatever to, to take. So, that was for me the most challenging. The first parts you always have a net behind you or left and right, but then on the pillow part there is nothing. It's like flying, flying, maybe [...] And it's kind of a goal, you start there and then you have to go around and it's a.. point. And it's in the middle of the deep stage, because it's also, yeah the first challenge to go over the edge and then really to be thirty meters up high"
(resp. 9).

These different physical challenges were recognized by other respondents as well. Most of them found the center of the installation the scariest and most physically challenging. Another respondent commented that this physical experience created more awareness of how their body felt.

"[S]o you are in the reality, not in the future or in the past. You are drawn into your body, so you feel like you walk, and you feel your heartbeat, and you hear, and uhm... So, you are not in the world of your thoughts or in cognitions or something" (Saraceno resp. 1 comp.). Two visitors also commented that they became more aware of sensory input like smell and sound, one characterized the sounds on the installation as 'whale sounds'. (Saraceno resp. 1)

In short, the respondents described very different physical experiences. The physical experiences of visitors from the Calder exhibition were more indirect, related to the movement of the artworks, the abstract forms and the possibility to take different perspectives in space, relating to the art. The physical involvement of the visitors at the Saraceno exhibition was much more direct, entering the exhibition was described as a process of physical adjustment to the different movements the installation required.

6.3.3 Limitations on the involvement of visitors with the exhibition

Although most respondents experienced an evident emotional- and physical involvement with the exhibitions, they could name different aspects that limited their involvement as well. At each exhibition there was one exception. At the Calder exhibition one respondent said that she found it a complete experience: the art entailed both movement, color and it related to time and space. The respondent at the Saraceno exhibition mentioned that being on the installation was a complete physical experience. Both respondents could not imagine having an even greater sense of involvement with the art. The other respondents, however, could see limitations, but there are notable differences in the limitations the respondents experienced.

Respondents of the Calder exhibition

At the Calder exhibition the dominant experience was the lack of direct interaction, in the sense of touching the art, blowing at the art to create air flow or having the mobiles move. This was mentioned by seven respondents. One respondent commented: “Yeah, you wasn’t allowed to touch. That would have been nice as they really.. they cry out to be touched” (Calder resp. 5). And another said: “It’s a pity that it isn’t allowed to make wind, so that it would move a bit more. Because this is the only chance to see, uhm, how it works and, uhm, in space” (Calder resp. 7). Almost all visitors had hoped that the mobiles could have been put into motion. I compared the responses of the different visitors to track down possible relations between the answers of respondents. It was notable that the respondents who felt limited by the lack of possibilities to interact with the art, all valued the different perspectives that could be inhabited.

Further, the notable presence of the attendants was experienced as a limitation, some of the respondents were addressed by the attendants not to touch the art or try to blow towards the mobiles.

“I have here also tried to, gently tried to put them in motion by pushing at them, but then I was right away quite, yeah quite firmly addressed that it was definitely not allowed. [...] I do not have that as extreme in other countries, you see, and I am not at all someone that quickly says: Netherlands this, or German this, or France is this. But, I think it is very strict in German. You are extremely, are extremely watched and that is therefore something that I feel, what I feel constantly.” (Calder resp. 10)

Even when someone did not attempt to touch the art, respondents experienced that they were being watched and followed, limiting their desire to see the art in movement.

“You always get the looks of the guardians sort of. They, they, the objects want the air movement and so if you.. some objects seem to be like, they are put in that way so they cast like, or they move on this end, but you just want to blow on them so they move like, like I think was intended by the artist. When they are outside and put out in the open, and here it’s just no wind to do that [...] so that we could, the different, different shades and.. different shapes the pieces themselves form and they cast a shadow.” (Calder resp. 4).

Although there was disappointment about the lack of movement, some respondents also appreciated the fact that the artworks could not be touched, so they were not damaged. Further there was one comment made that the delineated route through the exhibition was limiting the freedom to walk. The elevated walkway in the Klee Halle divided the space into two distinct areas, forcing the people to go around it. One other comment was made about the sharp edges of some of the artworks, which was experienced as ‘unfriendly’.

Respondents of the Saraceno exhibition

At the Saraceno exhibition, complaints about the lack of movement were not an issue. Here, visitors felt restricted by the limitation of time they were allowed to spend on the installation; after ten minutes visitors were asked to leave the installation. “Yeah, extreme limitations, because it steals us the time and the calmness to, to stay and to settle for a moment and to think: what am I experiencing now?” (Saraceno resp. 4). Someone else replied that the time was too short to overcome her fears. “I think I needed more time to enjoy it, really. [...] Yeah, because I was so afraid, and if I can’t relax, and at the end I started to relax a bit [laughs] and then it was over.” (Saraceno resp. 6 comp.). The limitation of the amount of people allowed on the installation, a maximum of ten, was experienced as restricting as well.

“I understand the approach to, to measure communication and to give the communication a kind of space, but uhm.. I think it contradicts that, uhm, you only have, can, can, less than ten people at the same time. So, hm, it doesn’t foster it communication.. verbal communication.” (Saraceno resp. 4)

Further, five comments were made on the accessibility of the installation: it required some sportiness and could exclude older people with difficulty to walk or people that were afraid of height. In addition, the size of the holes in the net were experienced as limiting the accessibility, several respondents shared that their foot got stuck in the net and that was a bit frightening to them.

“If it would, if it would be the same material as the balls then it would be easier to walk, because you, as I said, it is a net and your... your feet gets stuck in the holes. And I had to have different shoes, they weren’t good enough, they were too big so it was always stuck in the net with my foot.” (Saraceno resp. 6)

On the other hand, one person felt that the installation was not challenging enough and could have dared him a bit more. Then there were some people who commented on the lack of interaction possibilities with the spheres. They were disappointed not being able to enter them and found them ‘just taking up space’. “But, if you, if you, you could go into these bubbles I think you can have, uhm, intimate or private experience. Because, because then you really, I think the sound will be different and you have another material around you...” (resp. 3). The spheres were limiting for one respondent in another way; she commented about the noise coming from new air being pumped into the spheres every few minutes. “It was a bit destroying the atmosphere from heaven or something or near the heaven” (Saraceno resp. 1 comp.).

Respondents from the Calder exhibition experienced more limitations in their involvement with the art. They mainly commented on the lack of movement of the mobiles and the fact that they were not allowed to touch the works. There was a desire for more direct contact with the art. Now, people had to remain distant, standing at the sites of the platforms. People also felt held back by the attendants who were monitoring that no one touched the works. The main restriction experienced at the Saraceno exhibition was the marked time frame and the number of people allowed on the installation at once. Some of the respondents felt that more time on the installation could have led to more reflection on the experience and more enjoyment.

6.4 The experience of visitors with the exhibition space

Although the set-up of the exhibition space was already brought up in the previous sections, where the enticement to talk and the emotional and physical involvement of visitors was related to elements of the exhibition, I also specifically asked respondents about their view on the exhibition space. Some of the outcomes overlap with previous topics; those I will only refer to shortly, but there were some interesting additions as well. First, the arrangement or set-up of the exhibition space will be treated, distinguishing reactions from respondents of the Calder exhibition and the Saraceno exhibition, then the context of the museum (building) will be covered.

6.4.1 The experience of visitors with the set-up of the exhibition

Respondents of the Calder exhibition

As already mentioned in the section on physical involvement, there were several comments on the ability to view the artworks from different perspectives, seven respondents at the Calder exhibition talked about this. Overall, the elevated walkway that provided the opportunity to look from a higher perspective and the amount of space that gave visitors the chance to walk around, were perceived as very positive. “It was important and it was good this way, that you had the chance to see the objects from different points of view” (Calder resp. 7). The lighting, which caused shadow effects with the artworks, gave an extra dimension to the three-dimensionality of the artworks. On the other hand, five visitors preferred a bit more air flow in the exhibition space or another solution to put the mobiles in motion. These three topics were discussed the most considering the arrangement of the exhibition space at the Calder exhibition. The visitors were positive about the general arrangement of the two halls. “That is very good because I can see the mobiles’ shadow, uhm, on the wall. That was very beautiful for me, and it moves, and I can go from this room and this room, and I have a big space” (Calder resp. 1). There were some positive remarks on the placement of the artworks; three respondents felt that the works interacted with each other, because of their shapes. “[A]ll five compositions that were, that sat next to each other, they were playing with each other kind of, and the shadows also, and how they moved, and they just had these, this.. expression with each other, not just alone” (Calder resp. 3 comp.). One comment was made about the professional arrangement of the exhibition. Another compliment was made on the central place of the artworks in the exhibition; no long explanations or decorations around the works. One respondent found it a relief that she did not have to worry about coming too close to the artworks, because the museum had provided platforms. “Yeah, platforms, you aren’t in danger of getting too close, you don’t always have to watch where the museum man stands, because you don’t want him to say to you: don’t touch the art!” (Calder resp. 8). This remarkable comment contradicts Bourriaud’s ideas on relational art. Bourriaud

(2002) wanted the exhibition to be a place where the involvement of visitors with the art was stimulated. He foresaw the visitor as an active participant in the exhibition. This quote shows that the respondent is occupied with not breaking any of the rules of the museum, in this case of coming to close to the art, she is therefore happy that the museum has solved this problem for her by providing platforms. Bourriaud (2002) could have felt disappointment that the conventions of the museum had such a strong influence in the exhibition space. Instead of stimulating the visitors to be more involved with the art, the platforms seemed to address the visitor as a more passive consumer, who walked through the exhibition in a delineated route.

Respondents of the Saraceno exhibition

At the Saraceno exhibition, most respondents commented on the route through the exhibition and the transparency of the environment. Two comments were made about the outfit, visitors were required to wear an overall. Respondents felt it made them part of a team. As previously mentioned, respondents noticed different challenges in moving through the exhibition. The route through the installation was not predetermined, as was the case with the Calder exhibition, but five respondents distinguished different areas of the installation. One comment, for example, was made about the area around the spheres.

R: "There's the entrance to another layer, there's a round place where there's this thick cable through, and then there's even more layers. [...]"

C: "And, uhm, the big bubbles uhm.. you, you can hold on or something and it's uh it's like a distraction or you, you can focus to it and so it's, uhm, it's less dangerous for the feeling to walk around the bubbles, or something. Then, if you, uhm, focus on these bubbles you have the experience you are, uhm, in a different environment and it's not above uh these, this room or something" (Saraceno resp. 1 + comp.).

The respondent experienced the area around the spheres in a distinct way from other areas on the installation, they gave him a focus point. This was perhaps needed, because four respondents commented on the transparency of the installation. Three respondents expressed their desire to have experienced the installation in a room that was darkened. "I would more like if it's a very, very dark room and you have a special light that illuminates the construction [...] I think the shapes of these nets would be more clear for me [...] how it goes up and down ..." (Saraceno resp. 5 comp.). The transparency of the environment made it a more fearful experience for some.

"Uhm, I think it felt more insecure because of the, uhm, the big glass and the, uhm, sky above you,

the, the, only the net to your feet and the walls would, which, uhm, how do you call the material? The transparent balls, which, nothing around you is something with a real, a real grip, a grip you can hold onto. You're somewhere up in the air and just there.” (Saraceno resp. 8 comp.)

Other respondents recognized that the transparency of the materials of the exhibition created a certain abstraction, there was nothing solid. One of them felt that the height became more abstract, because of the surroundings.

“But I think it’s kind of abstract in a way, the height or looking down to the ground because all the surrounding is so clean, I don’t know. [...] Yes, at the end I, at the end I laid down at the net and looking down, at my stomach. I thought it’s so, so abstract if you.. I don’t know, the clear floor and the clear surrounding, the height didn’t seem that intimidating. [...] Maybe, I always think I haven’t done both, yes, I would be more afraid of bungee jumping, because the surrounding is more, is not that abstract than of jumping out of an airplane.” (Saraceno resp. 5)

According to the respondent, the abstract lay-out of the space gave a certain surrealism to the height. It could be stated that the respondent had a detached view from up the installation. De Certeau (2007) wrote about the detached view from skyscrapers in the city, where the surrounding space was viewed as a map, a designed area. This idea could be applied to the exhibition space where visitors found themselves high up in the building of the museum, in a space that was separated from the rest of the building. The installation was, literally, in the air and the visitors perceived the surroundings as abstract. The quote above described how the transparency of the glass dome above them, the transparency of the net under them and the transparency of the spheres next to them, gave a certain detachment. The respondent was lying on his stomach looking down from a great height, but because of the abstract surroundings, the experience did not impressed him that much.

6.4.2 The experience of visitors with the context of the museum

Respondents of the Calder exhibition

The respondents commented on how they experienced the exhibition in the context of the museums. The museum space of K20 in which the Calder exhibition was housed, as well as the space of K21 where *In Orbit* was constructed, were praised for their spatiality and brightness. Eight respondents from the Calder exhibition said that they liked the large halls, providing sufficient space to do justice to the mobiles and sculptures. “It’s a big hall and there’s space where the mobiles can hang free. I think it can’t be a museum where it’s small” (Calder resp. 8 comp.). The white walls and the brightness of the space were valued too by these respondents.

“So, I think it is, especially this Calder, he just has to float and have space, and be able to expand. Because it also looks like these installations there, as if they could walk you should have the space around it so it can, and you hope to do that.” (Calder resp. 10)

Further, two respondents found the exhibition fit well into the museum building, because of its focus on modern art. Two respondents, however, critiqued the ceiling of the Grabbehalle, which they found distracting, because of the tubes constructed to it. “[I]n my opinion, [the mobiles] always need a plain white background. Over there they are not given, because you have some construction, some roof construction” (Calder resp. 5 comp.).

Respondents of the Saraceno exhibition

Respondents at the Saraceno exhibition were more elaborate in their explanations of how they perceived the context of the museum. The spatiality and brightness of the space were also appreciated here, five respondents commented on it.

“It’s cool to have this in this building, that you have, that’s so, so high in the air and that you have this view from Dusseldorf, that’s perfect for this building. [...] It’s also nice that you have this glass above and it’s very, very light.” (Saraceno resp. 7 comp.)

There were two comments made about the roof construction, which is a glass dome. “It’s cool! I think it’s, yeah, it’s in a museum, but it’s also modern and it’s under the sky, and, uhm, it’s nice. [...] Because when you look at the roof construction, it kind of resembles also a net” (Saraceno resp. 10). Another respondent preferred a plane ceiling.

“I don’t think that this roof fits to this construction [...] Yeah, it uhm, uh, the geometry, the shapes of these triangles, for example, they don’t fit together with this whole construction, I would say. I would like it, if it would maybe be a whole white roof...” (Saraceno resp. 5 comp.)

The days of the interviews there was sunny weather and two respondents thought that the experience might have been different on a cloudy day. Three respondents found the installation not particularly suitable in this museum. “Because I doesn’t relate to, to Dusseldorf or this space in in in particular. It could be Munich, or it could be in the Dolomite, or it could be in New York, it’s, actually it doesn’t care...” (Saraceno resp. 4). Other respondents agreed that the installation suited the building. “Uhm, I think I like the combination that has, is something really old, and on the other hand, side, it’s really

modern [...] here you can look down and you can see everything, every, uhm, floor..." (Saraceno resp. 2). According to another woman, by the display of the physical accessible installation in the context of the museum, a different audience might be allured.

"But, I think you, you can.. yeah motivate more people, and even children, to go there to, to have the experience. Just, it's completely different then when you say: we want to go to an art exhibition. [...] [B]ecause it's physical, because, uhm, nobody eh, yeah, say something about this, or you have to listen and you have to know something and, uhm, someone explained or.. you just can experience it by yourself. And every child, child, I think, will be happy to do it. It's like a playground, something." (Saraceno resp. 1)

This woman did not only consider the physical nature of the exhibition to be attractive to a wide range of people.⁴ She compared the set-up of the installation in the museum to that of a playground as well, explaining the accessibility. She was not the only one. Several respondents mentioned either climbing frames from the playground, installations at music festivals or attractions at the amusement park. One even went as far as predicting that this type of installation could in the future appear in IKEA stores.

"Like installations are always more interesting I think to people, because, because it's not such a.. it's not only an intellectual experience than that you have to watch to something, or talk about whatever. You have a more physical experience in every installation, I think. So this is, but it I also thought, yeah like, kind of playground, kind of music festivals whatever and eh.. I also thought when I was out there and looking to people and thought: Okay, this is now in a museum and stuff, but it also could be something that is, maybe since ten years or in ten years be a part of, maybe the funny part of every IKEA-shop or something." (Saraceno resp. 3)

The reactions of the visitors that compare the installation to an attraction in the museum park or the next IKEA attribute reminds me of the statements of Pine and Gilmore (2011) that foresaw an experience economy. The idea of attracting people by offering them an experience is not just a sales ploy, according to them, but a way to get people more involved. They argue that a visit to the museum does not only revolve around viewing an artwork, but should be a multisensory experience. This focus is necessary because museums nowadays have to compete with many forms of leisure, which often have a highly interactive nature. It is, however, the question whether the authors considered *In Orbit*

⁴ Children were, however, only allowed from the age of 12 and older, because of safety (Kunstsammlung NRW, 2013).

as a successful example, hearing that visitors compared the experience to being in an amusement park. The amusement should not be dominating the educational and aesthetic function of the exhibition, according to them. By some visitors the installation was valued more because of the museum setting: they felt the majesté of the old building made the experience more imposing.

R: "Yeah, I wonder if I wen-, if I would have gone there if it was in a bank building or in the Rheintower, there's a glass building where the legislation eh, the government, local government is. It's a great glass building, maybe you could have put it in between these eh.. room but, eh.."

C: "It has more dignity here [laughs] than in such an adventure scenery or something. It's a good combination of a casual feeling and, eh, this experience, I think." (Saraceno resp. 1 + comp.)

Although most of the respondents seemed quite positive about having an installation that they perceived as an attraction, one of the respondents criticized this aspect.

"It would be cooler if this thing would be installed out of the building. [...] Because it's artificial. This, if it would be between some buildings in the city there would be no, no ceiling. This kind of, I know that there is something below me and something above me. I'm kind of in-between and this let us feel more safe. [...] More real, practical. More like okay something kind of, maybe some kind of. But maybe it would not feel like it was so planned from the beginning. Because I know with this thing is.. fits into this environment exactly. [...] You can, maybe I know that this thing was planned three years along, maybe, or four, maybe just one." (Saraceno resp. 4)

These comments were in line with De Certeau's ideas on the conceptual 'place' and the inhabited 'space' (2007). The respondent described the place of the installation as "artificial" and "planned out from the beginning" (Saraceno resp. 4). De Certeau (2007) wrote about how places in the city were designed and planned by architects, creating places without real meaning or signification. The designed places could be characterized by an estrangement, because they are not inhabited by people. The respondent reacts to this idea of estrangement, because as a visitor he was moving through an environment that was, as already mentioned 'planned out from the beginning'. The respondent preferred to experience the installation outside, because between the walls of the museum it seemed artificial; a conceptual place where people move as intended by the architect. The environment of the museum was thereby perceived as a very carefully designed and controlled environment.

6.5 The process of signification to the art

The final section of the interviews was about how respondents signified or interpreted the artworks. I distinguished three different aspects: the appreciation of the informational texts in the exhibition space, the questions that the exhibitions elicited and, finally, the interpretation of the artworks.

6.5.1. The appreciation of visitors for the texts in the exhibition space

Respondents of the Calder exhibition

All respondents, minus one, read the texts on the walls at the Calder exhibition. Four of the respondents read all of the texts, while five only read the texts partially. Four respondents indicated that they did not find the texts very important to read; either because the texts did not influence their opinion on the art, or because the art of Calder did not need any explanation. The respondents that did feel that the texts were important put forward different arguments. Most respondents found the texts important because of the background information or context it provided them. For example, one of the respondents stated:

“Yeah, they help me to relate to certain things and they explain a certain interaction between Mondrian, and which are uhm, with Míro. Which is obvious somehow, if you know these artists that there were some relations, but it was not clear to me that they also worked together and shared some ateliers together. So, that helped me to put that into that perspective.” (Calder resp. 9).

There were more respondents who were interested in the relations between Calder and artists of the same period, while other respondents said that background information was mainly interesting because they learned that Calder was the founder of the kinetic arts or because of more information about the life of Calder. Another reason to value the texts on the walls, which might be related to the former reason, was that it provided a better understanding of the art, for five of the respondents. One of them reacted: “It’s very important for me, because it’s new art for me and so I can, uhm, see the information behind the art” (Calder resp. 1). The other respondents had similar comments; they found it difficult to explain, however, what it exactly was that they learned from the texts. Two respondents commented that they liked to have seen more texts on the walls. Four respondents commented that they had mainly gotten their information from either watching the documentary film or being informed by the attendants. “The film that is shown gives a lot of answers to questions: how he works, the fact that for Calder it was quite important that he was doing it, not, not the result, but doing it” (Calder resp. 7). In the analysis of the observations on the behaviors of visitors, a correlation was

established between the involvement of visitors with the texts and verbal interaction by visitors. This correlation was, however, not explained by the reasons visitors gave for valuing the texts. The respondents did not say that the texts elicited questions, for example.

Some parts of the texts at both exhibitions also addressed the vision of the artist. At the Calder exhibition, four respondents indicated that they found the intention of the artist important to be aware of. One of the respondents for instance reacted:

“I think that I, for me it’s especially the search that evokes something in me and the interaction or the, the conversations he [Alexander Calder] had with his contemporaries and the moment that he experienced to give a certain direction to his work, and that search I liked. I thought this was particularly beautiful and important.” (Calder resp. 10)

There were, on the other hand, eight respondents that did not find the intention of the artist important. They valued their own experience more, were more interested in the design and construction of the work, or thought that in case of abstract art the intention of the artist was not important, because the works speak for themselves. One of the respondents mainly valued her own experience over the intention of the artist: “Then I have no fantasies anymore, because I know what he meant with it” (Calder resp. 3 comp.). Another respondent reacted:

“When I look into abstract art, I normally don’t ask; why did he make it? Because it’s so, so, it’s only my ‘interpretation’ [...]. If we don’t really talk to the artist we will never know what his real intention was. So, its only speculation ...” (Calder resp. 6)

Respondents of the Saraceno exhibition

At the Saraceno exhibition, there were, in comparison to the Calder exhibition, more respondents who did not read the texts. Three respondents did not consider the texts, while five respondents read all the texts and three respondents read the texts partially. The fact that this comes to a total of eleven answers stems from a difference in answer between the respondent and the companion. Some respondents indicated that they went straight to the installation when they entered the museum and planned to read the texts afterwards. Another respondent said that she did not read the texts because she did not perceived the installation as art and was therefore not interested. Four of the respondents that read the texts indicated that they did not find them important or that they forgot all about the texts once they were up on the installation: One of the respondents explained that he read about the spider web, but did not recognize this vision once he was on the installation: “[I]f you think about it you make the connection or you could say that the bubbles could be the water drops in a spider web,

but uhm.. I didn't feel like a spider, but I also don't like spiders, so.." (Saraceno resp. 10). Her companion adds that she did not have the time to think about the ideas from the texts once she was on the installation. Other visitors did feel that reading the texts was important, they gave different reasons: two of them said that it provided them with more understanding of the installation:

"And I, I guess I exactly have the approach that's the, maybe the major part; like the explanations. Because especially like more abstract art, you're just looking and say: okay. But if I then read like, what's all about and which context is it and which answers to other art piece is it, it's like really: wow, like the black square. Well, if you understand it, it really like it has a message ..." (Saraceno resp. 1)

Three other respondents added that reading the texts influenced their experience on the installation. "... I read that the experience was some, something between flying and being on the ground. So, once I thought about this: is this like flying where you become a bit quicker than running, or is this like flying?" (Saraceno resp. 7). Finally, two respondents indicated that they valued the background information the texts provided them, because they were interested in the vision behind the artwork and because they were interested in other projects by Saraceno.

At the Saraceno exhibition, there were five respondents that found the intention of the artist important to be aware of. Being aware of the intention of the artist helped them, for example, to appreciate the installation more and look at the installation from a different perspective.

"[I]t really helped me to, also understand the idea of an air-, of a city in the air. I never imagined this when I saw this. [...] Uh.. I was first wondering if this was really art or just experience [laughs]. But after reading it, I could more understand what the maybe inner sense of this was. [...] It is about experiencing your own feelings. Yes, it's about experiencing." (Saraceno resp. 9)

There were four respondents who did not take specific interest in the intention of the artist. They either did not think about it, they valued the experience of being on the installation more or they felt that the installation got its meaning from the presence and interpretation of the visitors: "[W]hen an art comes to [...] their own life, then the artist is, is already out. You can't control what the people are experiencing that's the, that's the way this work of art correlates with the people in itself" (Saraceno resp. 4). There was one respondent who indicated that he did not understand the intention of the artist.

When analyzing the appreciation of visitors for the texts in the exhibition space, I noticed that at the Saraceno exhibition there were more visitors that indicated not to have read the texts, mainly

because they were most curious about experiencing the installation. This could indicate that the fear that Balloffet and colleagues (2014) described that enjoyable or amusing elements in the museum led to less questioning and reflection, is grounded. However, Bourriaud (2002) felt that it should not be the texts that lead the process of signification, but the artworks themselves. This comes back in the answers of respondents that did not value the texts greatly; they either found that the artworks needed no explanation or that they forgot about the texts once they were occupied with the installation. However, there were also respondents at both exhibitions who did feel that the texts influenced their perception. They could either better understand the art or, in case of the Saraceno exhibition, the information influenced their experience on the net. The information provided on the artist influenced the view of respondents too.

At both exhibitions, there were several respondents that valued the intention of the artist. There were, however, respondents who did not take much interest in the intention of the artist or who did not understand the intention (Saraceno exhibition). Reasons that were put forward were that abstract art needed no explanation, their own feelings or experiences were more important, or in the case of the Calder exhibition, they were more interested in the design of the art. Bourriaud (2002) felt that the artist is not the sole producer of the meaning of the artwork and this meaning is not fixed. Meaning is formed in interaction between the artist, the artwork and the public. This corresponds to the last quotation from respondent 4 at the Saraceno exhibition. There were a few more respondents from both exhibition who stated that they valued their own feelings and experience with the art more and that the intention of the artist was thus not central in the way they valued the art. There were, however, also reactions that the art spoke for itself, abstract art did not have a deeper sense or signification, or respondents were just not interested. In this sense, the vision of Bourriaud (2002) on the active role of visitors in assigning meaning to the art does not correspond with the reality at both exhibitions. I will go further into this in the next two paragraphs, where I present the outcomes on the elicited questions and the interpretation of the art by visitors.

6.5.2 The questions that the exhibition evoked with visitors

Respondents of the Calder exhibition

Most respondents felt that the artworks at the Calder exhibition elicited questions. Two respondents formed an exception: “The objects are that what you see and that’s your understanding” (Calder resp. 9). Others did feel that the objects provoked thoughts. Six respondents wondered about the production of the artworks: “I was fascinated by the technicality, technicality, so how to actually balance the pieces and make it work, so that it keeps the balance” (Calder resp. 4). Most respondents wondered about the maintenance of the balance of the mobiles, and how the balance remained

during air motion. Five respondents had questions about the background of Alexander Calder and his artworks.

“I just, eh, started thinking about artists, like what they think and uhm .. how they live. Like, they really, like, we saw this documentary about him and he seems to be uh.. yeah build the sculptures all the time. He is in his gallery and he is like building it all the time and he really enjoyed it. And so, for me it’s weird, because I, for myself, I have totally different goals in life. [...] He started something and now it’s in Dusseldorf and so many people come here and see it and find it impressing and fascinating and inspiring [...]. That are questions.. why?” (Calder resp. 3)

Another respondent questioned the artworks from a more philosophical perspective:

“I wondered how, you know because most of these forms [...] I found them to be very natural. So, I wondered like, uhm, like, how much or I don’t know, a Greek or someone that said that art is mimesis of nature. And I mean sometimes it is, but in other ways it isn’t ...” (Calder respondent 8).

Individual respondents felt that the associations of the shapes of the artworks elicited questions, the set-up of the exhibition, the fact that they had not seen mobiles and sculptures in a museum before or a specific artwork.

Respondents of the Saraceno exhibition

Respondents at the Saraceno exhibition had significantly less questions regarding the exhibition.

Individual respondents indicated that they were stimulated to think about Saraceno’s intention with the art, the nature of fear or the whole set-up of the exhibition. One of the respondents explained that the installation did not provoke thinking about it, because the perception of the installation was more physical and emotional, than cognitive.

“I think, while like experiencing this sculpture, whatever, or this piece, I, I, I wasn’t thinking a lot or nothing actually about the meaning and stuff, because it was more like the adventure aspect. [...] [I]t’s more like emotional than more like, you are more physical involvement, like normal art just viewing. It’s not so much about rationality...” (Saraceno resp. 2 comp.)

So, the Calder exhibition elicited more questions: mainly about the design and technique of the mobiles and the background of Calder and his work. Respondents at the Saraceno exhibition were

more occupied with the physical and emotional perception of the installation and did not think about it much in a cognitive sense.

6.5.3 The interpretation of the art by visitors

There were quite a few theories about the meaning of the artwork(s) regarding both exhibitions. However, there were also some respondents who did not think about how the work could be interpreted; four respondents of the Calder exhibition and as many as six respondents at the Saraceno exhibition did not consider the meaning.

Respondents of the Calder exhibition

Not everyone at the Calder exhibition liked to think about art and what it could mean (four respondents), or they just felt that there was no deep interpretation of the works, just the beauty of it. The respondents who did think about the meaning of the art gave several interpretations. The art was thought to be about expression of the feelings of the artist for two respondents, while two others felt it was about evoking associations and stimulating the imagination. The third interpretation, used by three respondents, explained the art through the physical shape and movement and the impact on the experience of space. One of the respondents related the art to the behavior of people, comparing the connections between the different shapes of the mobiles to the way people with different characters could relate to each other. The same respondent also connected one of the artworks, the bottle installation, to the chaos theory, in the sense that it formed an experiment with predictability.

Respondents of the Saraceno exhibition

Respondents of the Saraceno exhibition mostly responded that they were going to think or talk about the meaning of the installation afterwards, while others said that they were not informed about what the exhibition was actually about; they just enjoyed the experience. It is difficult to interpret these answers, since it frequently occurred that the experience was completely focused on their movement. It could actually be the case that respondents did not yet have the time to let the experience settle in and they were going to reflect on it afterwards. The interviews took place right after the visitors left the installation.

“You are drawn into your body, so you feel like you walk and you feel your heartbeat and you hear and uhm.. So you are not in the world of your thoughts or in cognitions, or something. That is a good thing about art, because art has a lot to do with thinking. It’s emotional too, but not that much anymore because you have to think a lot and compare other artworks and you have to know

the past of art, or something, uhm... So this installation is different from that, because I didn't thought about it that much, we even talked shortly: who is it, who made it and did the people have fear when they did it or something ..." (Saraceno resp. 1 comp.)

So, these women did think about the artist and the background of the art, but just briefly. The emotional and physical experiences were dominant. It was also mentioned that entering the installation was thought of mainly as an experience and the installation was even compared to the climbing frame at the playground or the attractions of an amusement park. Therefore, it is not sure that a reflection on the meaning of the art will actually take place. The lack of reflection could be explained by the large emotional and physical involvement that visitors felt because of which, as stated in the quote above, cognitive thinking was reduced. It could be that the adventurous aspect of the exhibition was most important, as this respondent admits: "It's not art, for me it's like an adventure to test myself how brave I am and how far can I go in in this..." (Saraceno resp. 4 comp.).

At the Saraceno exhibition, the meaning of the art was explained by the behaviors of, and communication between visitors on the installation, by four respondents. The sensing of other people through the tension of the net fostered communication. A few respondents read about this in the prospect. One respondent's interpretation was a bit more elaborate. He had the experience that when he was up on the installation, he was completely unaware of the people that were not with him on the installation. He gave the following interpretation of this experience:

R: "It's a little, it's a little kind of so, it's just a big interpretation kind of, but it's like two different levels, this is the higher society and you don't look down. In this level you look up and talk about the people, but they don't look at you kind of. [...] Yeah, yeah, that was kind of a metaphor that you had. So, the lower levels looking up and talking about them and watching them and comment every single step they are doing and ..."

C: "... the high class, the upper class is up there? And we are the lower class."

R: "Yeah, that's the metaphor." (Saraceno resp. 3 + comp.)

The helicopter view that visitors on the installation had, could provide visitors with a sense of loftiness, according to this respondent. This sense of loftiness was strengthened by the fact that there was a certain exclusivity to the experience, the respondent further explained. There were only a limited amount of people admitted for a restricted timeframe. This idea could be related to the discussed theory of De Certeau (2007); he wrote about the skyscrapers as exclusive places, offering a helicopter view on the city and the people down below. This distant view had a certain exclusivity to it because it belonged to the architects, planners and decision makers. The view from the skyscrapers was

described by De Certeau (2007) as 'detached' from the life down below, because the city was perceived only as a kind of map. This detachment comes back in the answer of one respondent who explained that he did not notice the people standing on the gallery. However, the difference is that De Certeau (2007) described that the city space could be inhabited by the people walking in the streets, down below. In this case the inhabitation of the exhibition space actually takes place up high, on the exclusive installation itself. There were other visitors who stressed the importance of this physical experience.

“[F]or example like a 100 years ago I think you had eh.. you talked to like everybody you met on the train, because you're having an experience together. So this is different today. So in the same it's.. the same here, so uh.. Now it's something special and if you meet someone in, eh, in eh, in London and you experience: Oh you've, you also were on this exhibition?! Okay, then you talk about it, but now you don't talk about: Oh you've also been on a train in Germany?! So, [...] when it's normal you don't, eh, think about it so much...” (Saraceno resp. 3)

The respondent described the unique experience of inhabiting a place (the installation) that was only conceptual before, just like the train represented a conceptual place before people first went on it. The installation was carefully designed by Saraceno before the visitors entered it. He thought out how the people could move on the installation and how the tension of the net was influenced by peoples movement. It was a conceptual place, as De Certeau (2007) described it, the presence of the visitors made it come alive. One of the respondents described the importance of the visitors on the installation.

“[M]y perfect art would be kind of.. where the visitor it part of the architectural part of the artwork. I love, uhm, installations were people go in and they have kind colored overall on and they, they make a picture of the work of art and it's only complete when people in it. Without people there I don't like this, this kind of art” (Saraceno resp. 4).

So, although quite a lot of respondents indicated not to have thought about the meaning of the installation, perhaps they were involved in a process of signification. The signification, according to De Certeau (2007), came from their physical participation and this was exactly what most respondents described. The emphasis on experience was the reason that respondents did not think about the meaning, they were not cognitively present, but focused on their physical- and emotional perception. This might not be considered as a conscious process of signification, but without visitors inhabiting the installation by their movement, the space was just conceptual, as the respondent above described. So,

there could have been a form of signification on the level of practice; the spatial tactics that visitors used, as a way to inhabit the space. This does not mean that we will not be any form of cognitive reflection; the interviews took place right after visitors left the installation and many indicated the desire to let the experience settle and read the texts afterwards. This was contrary to the Calder exhibition where people thought more rationally about their interpretation of artworks, relating the shapes and movement to the influence on the exhibition space. The interpretations of these respondents were, however, also concise and some respondent felt there was no deeper meaning to the artworks.

6.7 Summary

In short; at the Calder exhibition, it was notable that all visitors, except the two visitors travelling solo, had conversations with their companions. These conversations often had a quite technical and observational nature: the construction and look of the objects, the set-up of the exhibition and evoked associations were discussed. Some respondents specifically stated to have felt enticed to talk, because of the movement of the art, but others felt that the art needed no reflection. One respondent felt the need to keep quiet at the large exhibition space, which can be related back to the observations where indeed most subjects kept quiet. Most respondents felt emotionally involved with the exhibition, with feeling as enjoyment, inspiration and calmness, but the respondents found it difficult to explain these feelings. The respondents that were unaware of emotions blamed this on the abstract nature of the art. The explanations of the physical involvement were quite brief as well. Most respondents felt physically involved in an indirect way: through the movement of the art, the spatial relation between the art and themselves and the different perspectives on the art. The shadow effects and elevated walkway were perceived as positive, but visitors had liked to be more directly involved with the art through the motion of the mobiles. Another limitations for the involvement was the controlling presence of the attendants. Most respondents read (part of) the texts on the walls and valued the texts for the background information or the new insights it gave them. Some felt that the art was obvious and needed no explanation. Some also felt that knowledge on the intention of the artist was at the cost of their own feelings and experiences. The exhibition elicited quite a lot of questions, mainly aimed at the design of the art. Overall, there were some respondents who actively assigned meaning to the exhibition; the art was thought to be about expression of feelings, stimulating the imagination or the impact of the physical shape and movement of the art on space. Respondents who did not actively assign meaning to the art, attributed this to the idea that there was no deeper meaning to the works of Calder.

At the Saraceno exhibition there were some short conversations with unknown visitors, something that was considered uncommon in Germany. Further, the conversations were aimed at encouragement, which could be an indication for interpersonal relations. Most respondents felt that the installation evoked conversations because of the active participation with the installation. The addressed topics were related to the emotional experience of the visitors: the feelings of respondent and the encouragement of the companion. Few respondents felt that the conversation gave them new insights, reflection on a (more cognitive) meta-level through the conversations was limited. The respondent were very elaborate in their description of emotions: fear, enjoyment, safety, courage and stimulation. These emotions were related to the position of the visitor: some areas, such as the pillows, felt safer, while other areas (the center of the net above high ground) were considered more frightening. Furthermore, all respondents felt strongly physically involved: they had to completely adjust their locomotion to find balance. The process of adjustment was compared to walking on a boat, because of the instability. The movement of the net structure, the lack of elements to hold on to and the height were seen as the greatest physical challenges. Limitations for this involvement were the time frame and number of people allowed. The spatiality and brightness of the exhibition space were valued positively. The transparency of the environment created a certain abstraction or surrealism, according to respondents. In addition, there were some comments on the combination of the interactive installation and the context of the museum. The installation reminded respondents of the playground or the amusement park, this was valued for its physicality (a less cognitive experience). One respondent criticized the artificiality of the installation in the context of the museum. There were several respondents that mainly cared about the experience on the installation and did not read the texts on the walls. Some did not care much about the intention of the artist for the same reason: the meaning of the installation came mainly from the presence of the visitors on it. Others valued the texts and knowledge on the intention of the artist for providing more understanding of the art or influencing their experience on the installation. The installation elicited little questions among the respondents, this was mainly due to the evoked physical and emotional involvement. Respondents did not feel cognitively stimulated. Most respondents therefore also did not think about the meaning of the installation.

Chapter 7: Conclusions

In order to come to a final answer on my research question I will first interpret the results from the observations and interviews in relation to the formulated sub-questions.

7.1 The relation between the social behavior of visitors and the set-up of the exhibition

In chapter 5 I outlined the results of the participatory observations. The observations were related to the sub-question: *Which elements of the exhibitions In Orbit and Avant Garde in motion do or do not evoke social behaviors among visitors and how is this expressed?* I already outlined the most important results of the observations in the summary of the chapter. Here, I will shortly refer to these results to relate them to the earlier described expectations and to the literature of chapter 1 and 2.

At the Calder exhibition, I described the restrained- or composed attitude of visitors: serious expressions, limited physical activities and little verbal- and nonverbal interaction. The interaction that took place was not particularly related to these artworks; it was the texts that seemed to evoke conversation. These results thus indicate that the artworks did not seem to have made claims on the relational sphere in the exhibition space. Bourriaud (2002) wrote about the exhibition place as an area that fostered interaction between visitors. The functional systems of city life that entailed cultural conventions limiting spontaneous interaction between citizens, did not function in the exhibition space, argued Bourriaud (2002), because the exhibited artworks evoked conversations, discussions and reflection. This ideal could not be applied to the Calder exhibition. Even more so, it seemed that the cultural conventions of limited social behavior were all the more present in the exhibition space, because of the modest attitudes that visitors displayed. This corresponds to my expectations. I foresaw that there was going to be little interaction between visitors at this exhibition, because of the limitations in the exhibition space on the physical involvement of visitors. Balloffet and colleagues (2014) wrote about the fear of museum professionals that amusement in the museum could lead to a less contemplative attitude of the visitors. This exhibition did not have an amusing nature, and visitors seemed to approach it with a serious attitude. However, the assigned reflection and discussion of the professionals were missing. It might be the case that the reflection took place in silence, but an active debate was lacking and interaction with other visitors hardly took place. Actually, correlations were established between the time per subject spent on looking serious and a lack of verbal- and nonverbal interaction, and the time subjects spent smiling and whispering and nonverbal interaction.

At the Saraceno exhibition, there was more social behavior: subjects spent more time interacting with unknown visitors, there was more smiling and more verbal interaction (talking out loud). The interaction could also be more related to specific elements: quite some time was spent on the net structure interacting with unknown visitors. Perhaps this could be explained by the reactive nature of the net. Saraceno (2011) referred to this with the term “butterfly effect”, where the presence of one visitor on the net influenced the movement of another visitor and so forth (pp. 43). This process of influence on other visitors probably gave rise to interaction with unknown visitors. I expected beforehand that this exhibition would evoke more social behavior, because visitors would mutually influence each other’s movement. This seems recognizable in the results. However, despite the fact that there was more interaction and more diversity in behaviors, and although part of the interaction could specifically be related to the net structure and the pillows, I cannot establish that social interaction formed the core of the installation. There was quite a bit of time spent by visitors in silence, with serious facial expressions and without nonverbal interaction. This might be explained by the insecurity or fear that visitors felt. At the sides of the installation visitors spent a lot of time crawling, which could indicate that visitors were seeking more security, because these parts were above the gallery instead of above high ground.

Bourriaud’s vision on the exhibition space as an interstice or in-between space, that combats the mechanization of social functions, could, however, be more applied at the Saraceno exhibition. Visitors displayed behaviors that did not correspond to a traditional approach of museum culture. Crawling, lying down, touching the art, laughing out loud, talking out loud and in a single case even shouting, were all displayed behaviors that might not be considered appropriate from a traditional view on contemplation in the museum (Balloffet, ea. 2014). It could be seen as a disruption of the rules on how to behave in relation to artworks: visitors entered and touched the art, which is often not allowed in museums. In line with De Certeau (2007), the different spatial tactics that were used by the visitors could be a way of visitors’ territorializing the museum environment that was otherwise mostly conceptual. As seen in the conclusion of the observations of the exhibition space, the environment was carefully planned and designed. The abstract sphere this created could, according to De Certeau (2007) be broken by the physical appropriation of the space in case of the Saraceno exhibition.

7.2 The relation between the experience of visitors and the set-up of the exhibition

In chapter 6 the outcomes of the interviews were presented. The interviews were related to the sub-question: *How do the different elements of the exhibitions In Orbit and Avant Garde in motion affect*

the experience of visitors? Here, I will shortly refer back to the most important results, as indicated in the summary of the chapter and relate these to the literature and the previous established expectations. In the interviews, different topics were addressed, which I will separately address.

7.2.1 The experience of the social sphere

Bourriaud (2002) envisioned that the exhibition space evoked interpersonal relations between unknown visitors. I referred to these relations as the conversations, discussions and exchanged behaviors among people that met each other in the context of the museum, and where a certain interdependency existed. At the Calder exhibition, there were no interpersonal relations between visitors that met each other at the exhibition, because no conversations with unknown visitors took place. All visitors, except the two visitors travelling solo, did have conversations with their companions. Although Bourriaud (2002) envisioned that visitors to an exhibition talked, he had hoped that discussions were evoked by the personal experience and interpretation of the art. But the conversations were mostly about the design of the artworks.

At the Saraceno exhibition there were some short conversations with unknown visitors, something that was considered as uncommon in Germany. This is interesting, because the existing cultural convention in the public space not to talk to strangers, was broken. Bourriaud (2002) indicated this as a sign of the relational nature of the art: he envisioned the exhibition space as an interstice or in-between space, where spontaneous interaction was stimulated. Further, the conversations were aimed at encouragement, which could be an indication for an interpersonal relation. If visitors were a bit fearful about moving on the installation and others encouraged them to go on, there was a certain interdependency. But because of the short nature of these conversations I am not sure if the word 'relation' is actually appropriate. Bourriaud (2002) hoped for an active participation of visitors, where signification occurred through social interaction. This was not the case here, the interaction mostly had a reassuring function for visitors who felt insecure on the installation. Reflection on a (more cognitive) meta-level through the conversations was limited. This outcome did not correspond to my expectations. I thought that the close physical involvement with the installation could stimulate the visitor to personally give meaning to the artwork, through the exchange of experiences and discussion.

7.2.2 Degree of involvement with the art

Nakajima (2012) wrote about the active involvement of the museum visitor. Although respondents at the Calder exhibition felt emotionally and physically involved with the exhibition, they found it difficult to explain this. There was some critique on the lack of possibility to directly interact with the art,

because of the little air movement and the presence of the guards. So, the activation of the visitor was not quite achieved, because of the limited possibilities for direct interaction with the art.

At the Saraceno exhibition the experience of respondents came across as quite intense. The involvement of the visitors was, as I expected, directly related to the art; emotions as fear and physical sensations as tension and unbalance were evoked. Respondents had to completely adjust their locomotion to find balance. Bourriaud (2002) wrote about “director’s art” where the whole exhibition could become a set where visitors were part of it (pp. 73). As I expected, this seemed to be the case here. The installation demanded the reaction of the visitors. Limitations for this involvement were, however, the time frame and number of people allowed. This could be related to the concept of “symbolic availability” (Bourriaud 2002, pp. 29). The limited accessibility of art was mentioned as one of the features of relational art, whereby the artwork was not open for consumption at all times, but got an exclusive character.

7.2.3 The experience of the museum environment

More and more attention gets paid to the museum environment and its opportunities for interaction, as Goulding (2000) described. This could have offered visitors the chance to actively participate in the exhibition. However, the opportunities were limited at the Calder exhibition, as already described. Visitors would have liked to be more directly involved with the art through the motion of the mobiles.

At the Saraceno exhibition there were several comments on the fact that there was no predetermined route through the installation, but that there were several physical challenges. This relates to the view of Bourriaud (2002) on the exhibition as an interstice or in-between space where the systems that structure the public space were not present. Maps or delineated routes through the exhibition could be examples of elements that ruled out the spontaneity of social behavior. This was not the case here, leading to more opportunity for visitors to inhabit the space and contribute their own meaning to it. Furthermore, the transparency of the environment created a certain abstraction or surrealism, according to the respondents. Visitors found themselves high up in the building of the museum, in a space that was separated from the rest of the building. This could be related to the detached view that De Certeau (2007) wrote about. However, at the same time the respondents occupied a very tangible position, because of their physical involvement with the space. This duality could have created the surreal experience that respondents described.

The installation reminded some respondents of the playground or the amusement park. Amusement was, however, part of the service-based industry that Bourriaud (2002) refuted, because of the central place of supplier-client relations. He envisioned art that critiqued the monitored

relational sphere of the service economy. From the interviews this did not seem to be the case, respondents valued the association with an amusement park because of the less cognitive experience.

7.2.4 Signification

Despite my expectations, the respondents at the Calder exhibition were more actively involved with signification: they were more interested in the texts, the intention of the artist and thought about the meaning of the artworks more. I had expected that the limited physical involvement had prevented visitors from actively interacting and discussing the meaning of art. However, the signification that took place was predominantly of a cognitive nature: visitors were interested in how the artworks were constructed and with which other artist Calder was acquainted with: this did not completely correspond to the participative visitor that Bourriaud (2002) wrote about. Art appreciation was, according to Bourriaud (2002) situated in a social context.

At the Saraceno exhibition, the respondents were more occupied with the physical experience of being on the net itself than with signification, contrary to my expectation. For some of the respondents the physical experience was related to the meaning of it; the sensing of other people through the tension of the net fostered communication. One respondent had a more elaborate explanation about a symbolic division in class. Another respondent drew a comparison to the excitement that the presence on the first moving trains evoked. Travelers experienced how it was to stand, sit or walk in a space that was moving and through these tactics the conceptual space of the trains became inhabited. This idea could be related to De Certeau's idea of a 'lived space'. The space of the installation became inhabited by the spatial tactics of the visitors. The visitors might not have reflected on Saraceno's concept of a city in the sky, but they were aware of their physical reactions on moving through a space that was not directly connected to earth: their awareness was physical and emotional. The value of the installation for these visitors was mainly derived from the physical experience. Through this experience, though, they transformed the concept of Saraceno of a city in the air, into an actual inhabited experience, in the sense that De Certeau (2007) wrote about.

7.3 Final conclusion

My research question was: *How do the possibilities for interaction with the artwork(s) at the exhibitions In Orbit and Avant Garde in motion affect the social behaviors and experience of museum visitors?* Here, I will relate the conclusions of the observations and interviews to each other in a final conclusion. I will elaborate most on the interpretation of the results of the Saraceno exhibition: as indicated in the introduction, I am mostly interested in how the possibilities for interaction at this exhibition influences the visitor.

It has become evident from the set-up of the exhibition space and the type of artworks displayed that there were differences in interactivity at both exhibitions. The possibilities for interaction at the Calder exhibition remained limited; it was not allowed to come close to the artworks and the route of visitors through the exhibition was directed by the creation of corners, the placement of platforms and the installation of the walkway. The conventions of the museum, such as not touching the art, were nowhere explicated, but were communicated through the arrangement of the spatial elements and the presence of the guards. The set-up of the exhibition space influenced the social behaviors and experience of museum visitors. Visitors moved through the exhibition space with a composed attitude: a serious expression, hardly any nonverbal interaction, and the little verbal interaction that took place remained at a quiet level and was only aimed at direct companions. The set-up of the exhibition also caused a less direct involvement with the art; visitors were wondered by the construction of the artworks and they liked the movement of the art, but felt restricted by the fact that the art was not allowed to be put into motion. The signification to the art was much related to the technical interest of the visitors and the associations that the shapes of the works enticed. Reflection on the personal experience proved to be difficult.

The spatial set-up of the Saraceno exhibition and physical accessibility of the installation, on the other hand, had a clear interactive nature: visitors were invited to enter the installation and through the reactivity of the net structure their physical involvement was demanded. This interactivity was appreciated by the visitors, who praised the different physical challenges the installation offered and the range of emotions that was evoked. The installation transformed the exhibition space in a sense. The exhibition space of *Kunstsammlung K21* was no longer solely an environment where art was exposed. As described by Bourriaud (2002), it became the setting for an experience, or perhaps a performance, since visitors became a part of the artwork. The participating visitors high up in the installation, were watched by the visitors down below, and vice versa, creating an unequal situation, commented one of the respondents. Others said that the installation came alive because of the presence of the visitors who caused motion.

Museum professionals feared according to Balloffet and colleagues (2014) that the 'fun' aspect, that several respondents referred to, would rule out a more contemplative view on art, including conversations and reflection. At both exhibitions there was a positive correlation established from the observations between the amounts of time spent smiling and the time spent whispering or talking. In addition, a serious expression correlated with a lack of verbal- and nonverbal interaction. This indicated that enjoyment of the exhibition could be related to an increase of conversations, and did not have to imply less discussion. Still, part of the fear of the museum professionals was grounded, since visitors admitted that they did not perceive the installation cognitively; their emotional- and

physical involvement was central. Visitors related the installation to attractions at a playground or an amusement park. Some respondents also felt that reflection on the installation was not required or even stated that they did not perceive the installation as art. I agree with Bourriaud (2002) that it is a pity if visitors lack reflection on the art and their experience and it does not correspond to my expectations beforehand. I thought that the interactivity at the exhibition would be employed by a critical function and emphasize the spontaneous social behavior, counter to the monitored relational sphere of the service economy.

I think that the experience of visitors of the installation *In Obit* oscillated between the spontaneity of the relational art and the controlled environment that Bourriaud critiqued. On the one hand, the shown interaction at the Saraceno exhibition was of a different nature than the Calder exhibition: visitors talked a bit more to unknown visitors and the nature of their conversation was more aimed at encouragement and the sharing of feelings. Observants smiled more, talked out loud and showed a wider range of physical activities. One respondent commented on the unicity of the spontaneous chats with unknown visitors; Germans would usually keep a reserved attitude in public spheres. The installation enticed visitors to talk to each other. This seemed to imply that the systems of the city that discouraged social behavior, as Bourriaud (2002) described, were indeed less applied at this exhibition. The installation was characterized by a certain arbitrariness; visitors could not predict how the net structure would react to their movement and the movement of the visitors around them. This disrupted the cultural norms and standards of the museum in how to behave: opening up possibilities to lie down, crawl, shout and laugh out loud.

On the other hand, visitors did not feel appealed to reflect on the meaning of the installation. A single comment was made that the installation was still set-up in an artificial setting and was very much preconceived. Therefore the social behaviors were not truly spontaneous, but planned. When I apply De Certeau's vision to the exhibition space, the installation could indeed be a conceptual place, as the respondent implied: designed and planned by the artist in collaboration with other professionals. However, visitors were involved in a collective process of assigning meaning through the spatial tactics. Saraceno's vision of an Air-Port-City was quite unknown, but through their physical involvement with the installation and the discussion of their feelings, visitors seemed to turn Saraceno's abstract installation into an inhabited 'lived space'. Almost all respondents indicated that the experience asked for physical adjustment of the locomotion and that the experience was 'unique'. The awareness of visitors was physically and emotionally rooted, instead of cognitive, as most respondents indicated. In a way, the vision of Bourriaud (2002) on the exhibition as an interstice or an in-between space could be applied here. Visitors were demanded to be 'present', to be aware of their bodies and their emotions, as described by several respondents. In this sense they seceded from the

mechanization of the structured public life, where many actions might be automated and were routine conventions, as not walking on the motor way or moving over an escalator, were ingrained. In the case of this installation, none of the actions of the visitors were routine. This made the experience so extraordinary for the visitors: getting used to the height, to the tension of the net and to the motion of other visitors caused both feelings of fear, enjoyment, stimulation and courage. These emotions were embodied, opposite to those of the visitors of the Calder exhibition who first had to overthink their emotions. The visitors at the Calder exhibition reflected on the exhibition cognitively, but the inhabitation of the space and the direct relation with the artworks was lacking. Therefore, I believe that visitors of the Saraceno exhibition were involved in a process of signification to the art, but this signification came from an embodied experience. I interviewed the respondents directly after they left the installation, so it is likely that more cognitive reflection would follow later. But, in the first instance, they gave meaning to the exhibition space by being fully present in the space: aware of their emotions, aware of their bodies.

7.5 Discussion and recommendations

I think that the signification of visitors thus did not come from a critical perspective on the philosophy behind the art, or a shift in world view, and that this might also not be what made it artistic. Perhaps the perspective on signification asks for a different view on artistry, in the sense that Bourriaud (2002) wrote about: not an artistry that is just valued for craftsmanship or aesthetics, but for its social and behavioral implications. I agree with Ruitenberg (2010) that the installation might not be perceived as separate from a commercial sphere. Out of the interviews, the relation with amusement was evident. But this does not mean that the critical function of the art was lost. The visitors were not subjected to ideology, nor were they hung up by the construction of the artwork or the historical background. They were involved in an interactive experience that appealed to their physical and emotional involvement, regardless of their visions or beliefs. The subjective sphere of this exhibition was thereby a critique of its own; counterbalancing the standardization of the public sphere.

It can be discussed, however, whether this subtle critique was recognizable for visitors. Some respondents thought that the installation was about the subjective sphere of people's behavior. But several respondents did not consider the meaning of the installation. Visitors were so impressed with their experiences after coming out of the installation, that reflection had not taken place yet. But, it could also be that visitors did not recognize the critical function of the installation. I agree with De Certeau (2007), that visitors who 'just' wanted to gain a new experience, might have contributed to signification anyway. Because of their presence on the installation, their physical appropriation of the

space and social behaviors, they broke with standards of the museum environment and the mechanizing functions of public space.

Imposed mechanisms of control were, however, not completely excluded from both exhibitions, which might explain why there was less social behavior (in particular interpersonal relations) than I expected. Visitors of both exhibitions struggled with the restrictions of the museum environment. At the Calder exhibition, visitors felt watched and controlled by the confinements of the museum environment and the presence of the attendants (guards). Through the strong surveillance, the behaviors of the visitors were regulated: a respondent gave an example of trying to blow at the mobiles to put them into motion, but altering her behavior because of an attendant. Visitors of the Saraceno exhibition felt that the regulations of time and number of people allowed on the installation, limited spontaneous behaviors. Without these regulations respondents could have enjoyed the experience more, because the limited time frame caused their attention to be focused at regulating their locomotion and conquering their fear of height. However, at the Saraceno exhibition, visitors also took an elevated, perhaps even voyeuristic, vision themselves. The position of the visitor from high up in the installation, created a distance between the visitor and the environment, as De Certeau (2007) wrote about. The visitor was thus not just subjected to the surveillance of the guards, which was the case at the Calder exhibition, but could gain optical control himself.

Still, when the time limitation had not existed at *In Orbit*, the visitors probably could have inhabited the space even more, because as De Certeau (2007) and Leach (2002) wrote, a space becomes 'lived' when citizens repeat their spatial tactics. Through the repetition the actions become stored in memory, creating a sense of familiarity with the space. When this is the case, a further process of signification takes place: visitors assign meaning to the place, not only as a newly conceived attraction, but as an area that is connected to sensory memories. From memory, the locomotion could quickly adapt to find balance on the net, visual impressions of the bright daylight that illuminates the transparent installation become stored and the little shrieks of visitors entering the installation for the first time, become trusted. At this moment, the visitor is no longer someone that visits the installation as an outsider, just to gain a new experience in the same way as taking a ride on a rollercoaster. He or she truly becomes a participant, a sense of ownership is formed. The installation is no longer retained to the conceptual vision of artists, curators or decision makers of the museum. The surveillance of the attendants and the regulations of the museum environment may still exist, but the visitor escapes this imposition, because the subjectivity of sensory experiences that are inscribed in memory, create a sense of particularity. A societal implication therefore could be that the museum becomes a more accessible and attractive place: conventional standards of the museum that might be perceived as 'elitist' by some groups in society are less applicable and the signification to art from a behavioral

perspective can attract a public who reject the sole emphasis on rational, philosophical approaches of art.

The tracking of visitors for a longer period of time could have formed an interesting addition to my research. It could have provided a more elaborate insight in the signification of visitors. Many respondents did not cognitively reflect on the installation, because they were initially so caught up with the physical- and emotional experience. My recommendation for further research would be to study visitors who repeatedly visit an interactive art installation, to ascertain whether the repetition of physical actions in the exhibition environment could indeed lead to more signification and a further sense of ownership, as I imply. In case of exhibitions like *In Orbit*, that ran for over a year, this could be realizable and it could deepen the insight in the possible process of familiarization with the exhibition space.

Finally, I will reflect on the process of research. In this study I compared the behaviors and experiences of visitors of an exhibition with mobiles and sculptures to an exhibition with an interactive installation. A few respondents from both exhibitions reacted that they did not reflect on the meaning of the art, because of the abstract nature of it. In this light, the study of an exhibition with (figurative) paintings could have been interesting. Further, a limitation of my research was the difference in the selection of subjects in case of observations and interviews. The age criteria was for interview respondents more select, than in case of observations. This was due to time pressure while researching the Calder exhibition. I had expected that a young public would visit the exhibition, but this was not the case. I therefore broadened the age criterion, especially for the observations, for which I sought more subjects. However, this makes relating the outcomes of the observations to those of the interviews more complex, because differences in background of the subjects could influence the results.

I studied a small group of subjects, particularly in case of observations. Since I processed the data in a quantitative way, more subjects could have increased the external validity of the results. This research was, however, not aimed at generalization, but at insight in the specific experience and behaviors of visitors of *In Orbit*, in relation to visitors of *Avant garde in motion*. The specificity of this case lay in the way that Saraceno used the exhibition space for his installation: he constructed *In Orbit* high up in the museum building. The experience of the visitors was therefore not just related to the physical accessibility of the installation, but to the experience of height and the adjustment to the wobbly net structure as well. This gave other dimensions to the experiences of visitors: they had to overcome their fears. I recommend for further research to study or compare other exhibitions with physical accessible art, without the challenges of height, to gain a more general insight in the influence of interactive art on the behaviors and experiences of visitors.

Bibliography

- Baarda, D. B., De Goede, M. P. M., & Teunissen, J. (2005). *Basisboek kwalitatief onderzoek. Handleiding voor het opzetten en uitvoeren van kwalitatief onderzoek* (2nd ed.). Groningen/Houten: Wolters-Noordhoff.
- Balloffet, P., Courvoisier, F.H. & Lagier, J. (2014). From museum to amusement park. The opportunities and risks of infotainment. *International Journal of Arts Management*, 16 (2), 4-16.
- Bourriaud, N. (2002). *Relational aesthetics*. Dijon, France: Les presses du réel.
- Calder Foundation (2014). Calder's work. Retrieved from <http://www.calder.org/>.
- Clarke, M. & Clarke, D. (2013). In *The concise oxford dictionary of art terms*. Retrieved from <http://www.oxfordreference.com>
- Certeau, M., de ([1984]2007). Walking in the city. In S. During (Ed.), *The Cultural Studies Reader* (3rd ed., pp. 156-163). London: Routledge.
- Dodd, J. (1999). Whose museum is it anyway? Museum education and the community. In Hooper-Greenhill, E. (Ed.), *The educational role of the museum* (2nd ed., pp. 131-133). London: Routledge.
- Goulding, C. (2000). The museum environment and the visitor experience. *European Journal of Marketing*, 34 (3/4), 261–278. doi:10.1108/03090560010311849
- Hanquinet, L. (Nov. 2013). Visitors to modern and contemporary art museums. Towards a new sociology of 'cultural profiles'. *Sociological Review*, 61 (4), 790-813. doi:10.1111/1467-954X.12072
- Hart, C. (2009). *Doing your Masters Dissertation*. London: SAGE Publication Ltd.
- Kirchberg, V. (2007). Cultural consumption analysis. Beyond structure and agency. *Cultural Sociology*, 1. doi:10.1177/1749975507073926.
- Kunstsammlung NRW (2014). Kunstsammlung Nordrhein Westfalen: Tomás Saraceno. Retrieved from <http://www.kunstsammlung.de>.
- Leach, N. (2002). Belonging: towards a theory of identification with place, *Perspecta*, 33, 126-133. doi: 10.2307/1567305
- Lehn, D., vom (2007). Interaction. In Ritzer, G. (Ed), *Blackwell Encyclopedia of Sociology*, doi:10.1111/b.9781405124331.2007.x
- Lehn, D., vom, Heath, C. & Hindmarsh, J. (2001). Exhibiting interaction. Conduct and collaboration in museums and galleries. *Symbolic Interaction*, 24 (2), 189-21, doi: 10.1525/si.2001.24.2.189
- Nakajima, S. (2012). Prosumption in art. *American Behavioral Scientist*, 56 (4), 550-569. doi:10.1177/0002764211429358
- Orbuch, T.L. (2007). Interpersonal relationships. In Ritzer, G. (Ed.), *Blackwell Encyclopedia of Sociology*, doi:10.1111/b.9781405124331.2007.x
- Pine, B.J. & Gilmore, J. H. (2011). *The experience economy*. Boston, MA: Harvard Business Review Press.

- Ruitenbergh, C.W. (2010). Art, politics and the pedagogical relation. *Springer Science+Business Media*, 211-222, doi:10.1007/s11217-010-9216-5
- Saraceno (2011). *Cloud Cities*. Ackermann, M., Birnbaum, D., Kittelman, U. & Obrist, H.U. (Eds.) Berlin: Distanz Publishing.
- Schreiber, J.B., Pekarik, A.J., Hanemann, N., Doering, Z. & Lee, A.J. (2013). Understanding visitor engagement and behaviours. *Journal of Educational Research*, 106 (6), 462-468.
doi:10.1080/00220671.2013.833011
- Simmel, G. (1971) *Georg Simmel on individuality and Social Forms*. Levine, D.N. (Ed.) Chicago, IL: The University of Chicago Press Books.
- Stewart, M. (2007). Critique of Relational Aesthetics. *Third Text*, 21 (4), 369-386.
doi:10.1080/09528820701433323
- Verschuren, P. & Doorewaard, H. (2007). *Het ontwerpen van een onderzoek* (4th ed.). Den Haag: Uitgeverij LEMMA.
- Zee, R. van der (2013, October). Tomás Saraceno droomt een wereld in de lucht. *Kunstbeeld*, 10, pp. 20-25.