

2009

Installation Art Accommodating Contemporary Art into our Spaces

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Installation Art
Accommodating Contemporary Art into our Spaces

Tova R. Small

Submitted in partial fulfillment of
the requirements for the degree of
Master of Arts in Museum Professions

Seton Hall University
2009

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Abstract

Installation Art Accommodating Contemporary Art into our Space

Tova R. Small

Exhibiting Installation art has become more prevalent in museums over the years with artists creating larger, more abstract works as well as works made of unconventional materials. For museums to stay relevant with contemporary art, exhibitions of Installation art must be included. The issue though is space. How do museums work with the limited spaces of their buildings and galleries? Once inside, the art must then be protected and maintained.

This thesis will use three New York museum exhibitions as case studies to discuss the issues that surround exhibiting Installation art: “*Richard Serra Sculpture: Forty Years*” (July 7, 2007- September 17, 2007) at the Museum of Modern Art, “*Cai Guo-Qiang: I Want to Believe*” (February 22, 2008-May 28, 2008) at the Solomon R. Guggenheim Museum, “*Take Your Time: Olafur Eliasson*” (April 20, 2008-June 30, 2008) at P.S. 1 Contemporary Art Center. These case studies will describe the methods and procedures that were utilized by these museums to exhibit Installation art in their spaces. The planning process before the installation, the actual installation, and the maintenance of the artwork will be discussed and will demonstrate the resourcefulness and ingenuity needed to exhibit Installation art within museum spaces.

I want to thank Corey Wyckoff and Kerry McGinnity from the Museum of Modern Art,
Jessica Ludwig from the Solomon R. Guggenheim Museum
and Summer Kemick from P.S.1 Contemporary Art Center
for taking the time to answer all my questions
and for providing me with invaluable information about their museum exhibitions

I want to dedicate this thesis

To my parents and siblings for all their support, guidance, and love

To my mother-in-law who spent hours reading each draft of this thesis and whose praises
made me feel like I could accomplish anything

And to my wonderful husband, Adam, without you I would never be where I am today

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Introduction

Today museums are putting together more exhibitions that include Installation art. Museums are more willing than ever to work with their space in order to provide a venue that best displays installations. However, Installation art still creates challenges for museums. The issue of space often complicates the installation process. Museums may take unconventional steps to bring larger pieces inside the museum. Further, museums must create space for the pieces once in the gallery. Museum staff must also protect and maintain installations, including those made of materials not usually seen in a museum setting.

This thesis will focus on three exhibitions of Installation art, all held at New York museums, as case studies: “*Richard Serra Sculpture: Forty Years*” (July 7, 2007- September 17, 2007) at the Museum of Modern Art, “*Cai Guo-Qiang I Want to Believe*”(February 22, 2008- May 28, 2008) at The Solomon R. Guggenheim Museum, and “*Take Your Time: Olafur Eliasson*” (April 20, 2008- June 30, 2008) at P.S.1 Contemporary Art Center. Using these exhibits, the author will discuss the issue of space, the implications the exhibition space has on the museum, and how these museums resolved to exhibit and maintain Installation art in their spaces.

The content summary of this thesis is as follows: Chapter 1 will provide background information on Installation art. The chapter will discuss what is meant by Installation art and will provide examples of artists whose works can be included in this artistic practice. Chapter 2 will discuss the three artists, Richard Serra, Cai Guo-Qiang, and Olafur Eliasson, featured in the exhibition case studies and how their individual work fits into the realm of Installation art. Chapter 3 will explore the spaces of The Museum of

Modern Art, The Solomon R. Guggenheim Museum, and P.S.1 Contemporary Art Center, the planning phase of the installation process and the considerations the museum took to install various works in their spaces. Chapter 4 will discuss the methods and procedures used by each museum to install the Installation art once the space issues had been solved. Chapter 5 will then look at how the museums worked to maintain and protect the works.

This thesis will provide a clearer picture of the necessary procedures needed in order to accomplish an exhibition of Installation art by highlighting the methods utilized by these three New York museums in showcasing installations of Richard Serra, Cai Guo-Qiang, and Olafur Eliasson.

Chapter One: A Background Of Installation Art

The term Installation Art is a relatively new term. To define Installation art is not a simple task. Is Installation Art a genre, a medium, or conceptual practice? According to Julie H. Reiss the term Installation Art “refers to a wide range of artistic practices, and at times overlaps with other interrelated areas including Fluxus, Earth art, Minimalism, video art, Performance art, Conceptual art and Process art.”¹ Reiss goes on to explain that all of these genres of art share the ideas of site specificity, institutional critique, temporal elements, and transient qualities.² The term Installation art can therefore be rather nonspecific and apply to many different types of art that utilize those goals.

Nicholas De Oliveira, Nicola Oxley, and Michael Petry also suggest that a description of Installation art must include conceptual goals such as- location, site, gallery, public, environment, space, time, and duration, despite not sharing formal qualities.³

The factors of space and time and the involvement of viewers, furthers the definition of Installation art as well. Mark Rosenthal states, “The viewer is asked to investigate the work of art much as he or she might explore some phenomenon in life, making one’s way through actual space and time in order to gain knowledge.”⁴

Rosenthal posits that viewers experience Installation art in the present moment within their own space and time. Reiss explains that the essence of Installation art is spectator participation whereby participation may vary with each artist.⁵ But in every situation as

¹ Julie Reiss. *From Margin to Center The Spaces of Installation Art* (Cambridge: The MIT Press, 1999), xiii.

² *ibid*

³ Jennifer González, "Installation Art." In *Encyclopedia of Aesthetics*, edited by Michael Kelly

⁴ Mark Rosenthal. *Understanding Installation Art From Duchamp to Holzer* (Munich; New York: Prestel, 2003), 27.

⁵ Reiss, *From Margin to Center*, xiii.

Reiss states, “the viewer is required to complete the piece; the meaning evolves from the interaction between the two.”⁶ In summary the viewer becomes a part of the work of art.

The word installation has also been associated with the term environment, although they have different connotations. As Jennifer Gonzáles states, both terms rely on the rejection that “art must take the form of discrete and durable objects that bear the mark of fine artisanship.”⁷ According to Gonzáles, the works of Environment art and Installation art also disrupted the boundaries previously made between the audience, the work of art, the site of the exhibition, and the outside world.⁸

The creation of early works of Installation art in the 1960’s and 1970’s was related to the need for artists to break away from the conventional gallery and museum experience. According to Claire Bishop, many artists exhibited their work in alternative spaces that were not involved in marketing art and that allowed viewers a direct and immediate response with the art.⁹ Examples of this trend can be seen in the Environments and Happenings of Allan Kaprow (1927-2006) and Claes Oldenburg (b. 1929) and in the Minimalist sculptures of Robert Morris (b. 1931), Carl Andre (b. 1935), and Donald Judd (1928-1994). Kaprow’s work titled *Words* (1962) was exhibited in the Smolin Gallery in New York, in two rooms where visitors to the gallery were invited to write words on paper and add them to words already covering the entire space of the walls. Visitors were provided with chalk, crayons, and pencils, as well as rollers. Here, the visitors were more than spectators but participants in the work.¹⁰ Kaprow had claimed that with this work, he “wasn’t installing anything to be looked at...but

⁶ *ibid*

⁷ Gonzáles

⁸ *ibid*

⁹ Claire Bishop, *Installation Art A Critical History*, (New York: Routledge, 2005), 23.

¹⁰ Reiss, *From Margin to Center*, 4.

something to be played in, participated in by visitors who then became co-creators.”¹¹ Claes Oldenburg’s work, *The Store* (1961), was done in a rented storefront at 107 East Second Street, on the Lower East Side of Manhattan and was sponsored by the Green Gallery. Oldenburg installed papier-mâché art pieces that simulated objects that would be found in a real commercial store.¹² This space acted as an actual store but also as a gallery because art was the merchandise.¹³ The artist was the proprietor “selling” these objects as well as manufacturer creating the work in this space that was also his studio. The viewers took on the persona of customer where they could browse the store and even buy the objects. Reiss stated, “These activities contributed to erasing the boundaries between art and life.”¹⁴

The artists working within the genre of Minimalism also contributed to what is known as Installation art. Julie Reiss explains that Minimalism is a term used to describe “non referential geometric sculptures”¹⁵ Reiss also states that a general history of modern art defines Minimalism as “sculpture that creates an architectural space or environment.”¹⁶ The ability to create an environment out of the work also connects Minimalism to Installation. Minimalist sculptors were influenced by the work of David Smith who created basic geometric shapes out of stainless steel.¹⁷ Smith’s work however, according to Frances K. Pohl, maintained a sense of “artfulness” by placing his sculptures on pedestals to set them apart from the surrounding space while creating one

¹¹ Bishop, *Installation Art*, 24.

¹² Rosenthal, *Understanding Installation Art*, 51.

¹³ Reiss, *From Margin to Center*, 19.

¹⁴ *ibid*

¹⁵ Reiss, *From Margin to Center*, 50.

¹⁶ Reiss, *From Margin to Center*, 51.

¹⁷ Frances K. Pohl, *Framing America A Social History of American Art* (New York: Thames & Hudson, 2002), 458.

optimal viewing position.¹⁸ Artists like Robert Morris, Carl Andre, and Donald Judd, continued with the themes of simplicity and the use of industrial materials but created objects that could be walked around and viewed equally from any position without seeing the hand of the artist.¹⁹ Erika Doss explains that Minimalist sculptors were interested in the “links between objects, audiences, and the spaces they both occupied.”²⁰

Robert Morris’s *Untitled (L-Beams)* (1965) was an arrangement of three large L-shaped plywood pieces in a room. Morris arranged these beams differently in each space while considering the variables of light, space, and the human body to express the meaning of these objects.²¹ Though the beams were identical, their orientation confounded viewers who could not decipher whether they were the same or different.²² Morris commented that the viewer is establishing relationships as he views the object from various positions and under varying conditions of light and spatial context.²³ By placing these sculptures in the visitors’ space, the visitor is engaged with both the space and the object and can contemplate the object and its relationship to that space.

Carl Andre’s floor pieces, such as *144 Lead Square* (1969) also deal with spectator participation by challenging the spectator to consider the relationship of the piece to the floor.²⁴ Visitors know not to touch art objects but *144 Lead Square* invited them to do so. Mark Rosenthal explains that this sculpture allowed and invited viewers to walk on it, which was not a normal practice with previous sculptures.²⁵ Reiss asserts

¹⁸ *ibid*

¹⁹ *ibid*

²⁰ Erika Doss, *Twentieth-Century American Art* (United Kingdom: Oxford University Press, 2002), 165.

²¹ *ibid*

²² Reiss, *From Margin to Center*, 51.

²³ Bishop, *Installation Art*, 56.

²⁴ Reiss, *From Margin to Center*, 56.

²⁵ Rosenthal, *Understanding Installation Art*, 63.

that this participation challenged the idea of sculpture as well as proper museum behavior.²⁶

Installation art overlapped with the ideas of Process art and Conceptual art created in the 1970's, all challenging to museum practice. During this time Installation art entered into museum exhibitions with many artists challenging the notion of the permanence of a work of art and its ability to be collected. Sol LeWitt's work for the exhibition *Using Walls* in 1970 at the Jewish Museum in New York is an example. LeWitt (1928-2007) executed a drawing directly on the wall. He said that this drawing fit with Conceptual art where the idea or concept is the most important aspect of the work.²⁷ People could "collect" this piece by receiving a photograph of the work with written instructions on how to execute the wall drawing.²⁸ The actual work on the wall at the Jewish Museum was not collected.

The context of where the work is exhibited is another element of Installation art. Artists were creating works that were site specific and where the site became the subject of the work.²⁹ As Claire Bishop stated, "Context became a crucial consideration in addressing art's relationship to the market and museum infrastructure, and installation art was but one of many forms that emerged as a result."³⁰ Vito Acconci's art embodies a convergence of installation, performance, and Conceptual art.³¹ In *Seedbed* (1972) at the Sonnabend Gallery in New York, Acconci (b. 1940) hid beneath the floor of an empty gallery where his voice was heard groaning as he masturbated. Bishop stated that "This

²⁶ Reiss, *From Margin to Center*, 56.

²⁷ Reiss, *From Margin to Center*, 86.

²⁸ *ibid*

²⁹ Rosenthal, *Understanding Installation Art*, 67.

³⁰ Bishop, *Installation Art*, 32.

³¹ Bishop, *Installation Art*, 66.

installation included the sphere of performance art, all for the purpose of subverting the 'innocence' of space."³²

Hans Haake's work *Manet –PROJECKT 74* (1974) contained an explicit institutional critique. Haake (b. 1936) was invited to exhibit a work at the Wallraf-Richartz Museum in Cologne, Germany. At the time, the museum owned a work by Manet that was donated by an ex-Nazi. *Manet-PROJECKT 74* was made of a framed documentation of the provenance of the Manet painting, which exposed the Nazi ties of the donor. Many artists like Haake created art that was not discrete or portable, which the market depended on.³³ Through his art Haake is among a group that as Jennifer Gonzáles claims "attempts to make visible the systems of power that underlie all exhibition practices."³⁴

During the 1980's through the 1990's museums looked for ways to mainstream Installation art. During this time museums joined alternative spaces in including Installation art. Major international exhibitions like the Venice Biennale and Documenta in Germany joined venues like the Dia Center in New York and Capp Street Projects in San Francisco in relying on Installation art to create memorable and high impact shows within large exhibitions spaces.³⁵ These venues consolidated the status of Installation art through acquisition policies and commissioning new work.³⁶ Walter De Maria's *New York Earth Room* (1977) was exhibited as a long-term installation in the Dia Center in SoHo in 1980. The work, consisting of 250 cubic yards of dirt was placed on the floor of a pristine white room. For Ann Hamilton's work *tropos* (1993), the Dia Center was

³² Rosenthal, *Understanding Installation Art*, 70.

³³ Bishop, *Installation Art*, 32.

³⁴ Gonzáles

³⁵ Bishop, *Installation Art*, 37.

³⁶ *ibid*

carpeted with the tails of slaughtered horses that created a turf of slippery, tangled, and smelly hair. Hamilton's work emphasizes material and elicits a sensory response.³⁷ Hamilton's works also changes the traditional relationship between the viewer and the object because their size encompasses the viewer and brings them into the physical space of the work.³⁸

The 1990's brought Installation art prevalence in museum exhibitions. Julie Reiss states that the reason Installation art became commonplace in museums at this time was that "the hurdles that initially made Installation art too difficult to assimilate were gradually overcome, in part because museum practice had changed somewhat, and in part because Installation art changed."³⁹ The Museum of Modern Art in New York organized an exhibition titled *Dislocations* in 1991 that gave seven artists the opportunity to create installations in the museum. *Dislocations* was the first full-scale exhibition devoted to Installation art at the Museum and took over the spaces devoted to temporary exhibitions and contemporary art on the third floor as well as space used for the permanent collection on the second floor. Bruce Nauman's installation *Anthro/Socio*, consisting of a dark room with giant video projections against the wall portraying a close-up image of a man mouthing "feed me/eat me/help me/hurt me/anthropology/sociology" and an accompanying recording of the same words but at different times, creating a disjointed experience for the viewer, was one such piece included in the exhibition.⁴⁰ By 1993,

³⁷ J. Fiona Ragheb. "Ann Hamilton." in *Guggenheim Museum Collection A to Z*. ed. Nancy Spector. (New York: Guggenheim Museum Publications, 2007), 132.

³⁸ *ibid*

³⁹ Reiss, *From Margin to Center*, 136.

⁴⁰ Reiss, *From Margin to Center*, 138.

Installation art became an established genre, both nationally and internationally and is now routinely exhibited and collected by major museums.⁴¹

⁴¹ Reiss, *From Margin to Center*, 156.

Chapter Two: Three Installation Artists

Richard Serra

Richard Serra (b.1939) received both a BFA and MFA from Yale University. Upon graduating in 1964, Serra traveled to Paris on a Yale Traveling Fellowship and then to Florence a year later. While in Europe he saw works by Picasso, Fra Angelicos, Mantegna, and Brancusi. Although originally trained as a painter at Yale, an exhibition in Rome in 1966 using live and stuffed animals and his move to New York in the late 1960s moved him away from painting toward sculpture.⁴² Laura Rosenstock explained that Serra's body of work challenged some of sculptures accepted conventions.⁴³ These new conventions of sculpture fit within the realm of Installation art due to the fact that many were installed in alternative spaces as well as outdoor landscapes. The idea of viewer interaction with the pieces also places Serra's work into that of Installation art.

From 1966 until 1967 Serra started to work with rubber, a material he found was easy to manipulate and use in different ways. He then moved to lead a year later, which could also be manipulated but had more mass and weight. At this time Serra began writing down a list of verbs and enacting them using rubber and lead in his studio. This list allowed him to study the process of making an object without any preconceived idea of what he was going to make or any definition of material, process, or what it would look like in the end.⁴⁴ This verb list, as Rosenstock states, "specified the process involved in and the constraints of making sculpture."⁴⁵ These works shifted the focus

⁴² Rosalind Krauss, "Richard Serra Sculpture," in *Richard Serra Sculpture* ed. Laura Rosenstock (New York: The Museum of Modern Art, 1986), 19.

⁴³ Laura Rosenstock, "Introduction," in *Richard Serra Sculpture* ed. Laura Rosenstock (New York: The Museum of Modern Art, 1986), 11.

⁴⁴ *ibid*

⁴⁵ *ibid*

from the object to the action, from the object that is made to the process of making it.⁴⁶ Serra's work *Splashing* (1968), was part of a series of works done between 1968 and 1970, taken from the verb "to splash." The work was exhibited in the Leo Castelli Warehouse in New York, an alternative space outside the white cube of conventional gallery space. The Splash Pieces, as Serra describes them, were lead casts made spoonful by spoonful built up incrementally. Serra said that he "saw it as forming a sculpture through a repetitive process."⁴⁷ The work also set up a different interaction with the viewer as the sculpture had no base or pedestal but was directly on the floor of the space. This direct interaction with the viewer relates to the defining principles of Installation art as well.

In 1969 Serra turned to creating what are known as Prop Pieces. The focus was on the physical properties of sculpture, such as weight and material, where the work's construction could be contemplated.⁴⁸ Serra wanted to make the weight of the materials self-evident and the Prop Pieces showed that through their configuration, the metal was held in place by their own weight. One such example, *One Ton Prop (House of Cards)* (1969), was made of four lead slabs each weighing 500 pounds that form a boxlike enclosure. These slabs maintained their positions by propping each other up by weighing each other down.⁴⁹ All of the Prop Pieces dared viewers to approach them and contemplate their weight.⁵⁰ These works again show the influence of the works on viewer participation.

⁴⁶ Carter Ratcliff, "The Fictive Spaces of Richard Serra" *Art in America* December 2007, 121

⁴⁷ Kynaston McShine, "A Conversation about Work with Richard Serra," in *Richard Serra Sculpture: Forty Years*, ed. Kynaston McShine and Lynne Cooke, (New York: The Museum of Modern Art, 2007), 25.

⁴⁸ Rosenstock, "Introduction", 12.

⁴⁹ Krauss, "Richard Serra Sculpture," 20.

⁵⁰ Ratcliff, "The Fictive Spaces of Richard Serra," 118.

Starting from the 1970's onward, Serra began using steel for his sculptures. The works he created during this time altered the viewer's perception of space. Serra's trip to Japan made him think of the idea of moving through space and something unfolding over time.⁵¹ The viewer could not view the piece from one vantage point but had to walk around and through them. With each step the piece changes configuration, allowing the viewer to be aware of the relation of the work to oneself and to the space it occupies.⁵²

Serra also created works outside the gallery space in site-specific landscapes. *Pulitzer Piece: Stepped Elevation* (1970-71) allowed viewers to move into its physical space. This work was made up of three enormous steel plates set up on the grounds of the Pulitzer house in St. Louis, Missouri. Rosaline Krauss quotes Serra as saying that "walking and looking into the landscape establishes the sculptural experience."⁵³

The same principle seen in Serra's landscape work was also seen in his works created indoors. These works forced viewers to walk around and through the entire piece. Examples such as *Circuit II* (1972-86) as well as *Delineator* ((1974-5) both redefine the space of a room. *Circuit II* is made up of four plates, each placed in a corner of a room and the only way to see the work fully is to walk through it to the center. *Delineator* is made of two plates one placed on the floor and the other on the ceiling at right angles to each other. The space between the two pieces has a powerful charge that can be threatening to the viewer. With this piece Mark Rosenthal quotes Serra as saying that he wanted to "establish and structure disjunctive, contradictory spaces."⁵⁴

⁵¹ McShine, "A Conversation about Work with Richard Serra," 29.

⁵² Rosenstock, "Introduction," 12.

⁵³ Krauss, "Richard Serra Sculpture," 35.

⁵⁴ Rosenthal, *Understanding Installation*, 64.

During the 1980's and 1990's Serra created large-scale works. The idea of construction was involved with these works as he worked with engineers and people outside the art studio. The idea of construction for Serra was as John Rajchman stated, "installing 'aesthetic' spaces in 'nonaesthetic' environments...mobilize our senses in a new, unfixed way."⁵⁵ These works Rajchman continues, "defeat space's habitual coordinates (up, down, right, left, high, low), unmooring us from our usual sense of orientation of 'being there.'"⁵⁶ *Clara-Clara* (1983) is such an example, with two identical cone-shaped steel plates inverted so that the two parts incline in the same direction, distorting the viewer's sensations when passing through them.⁵⁷

Torqued Ellipse I (1996) was originally exhibited at the Dia Center in New York. Serra explained that audiences were responding to the work differently than earlier generations. He stated that "people understood that they were walking into spaces that weren't architecture and weren't in nature—and they couldn't figure out from the outside what these spaces would be like on the inside, and vice versa."⁵⁸

Rajchman said that the torqued pieces brought advances in working with steel that allowed as Serra stated, "to spin out different volumes, different voids, different passages."⁵⁹ These works also gave freedom to the audience by creating space that could be experienced through different lines and passages. The exhibition *The Matter of Time* (2005) at the Guggenheim Bilbao was as Serra explained in an interview with Kynaston McShine in September 2006, a summation of the Torqued Ellipses as well as the

⁵⁵ John Rajchman, "Serra's Abstract Thinking," in *Richard Serra Sculpture: Forty Years* ed. Kynaston McShine and Lynne Cooke (New York: The Museum of Modern Art: 2007), 63.

⁵⁶ *ibid*

⁵⁷ Rosenstock, "Introduction," 13.

⁵⁸ McShine, "A Conversation about Work with Richard Serra," 34.

⁵⁹ Rajchman, "Serra's Abstract Thinking," 70.

beginning of using toruses, spheres and spirals.⁶⁰ The exhibition was another example of the freedom given to the viewer. Serra set the pieces in the entire space of the museum floor. In order to experience the entire installation of works the viewer had to walk the length of the space and back. No prescribed way of seeing the pieces was set up in the space.⁶¹ The three new works created in 2006 for the exhibition “Richard Serra Sculpture: Forty Years” at the Museum of Modern Art: *Torqued Torus Inversion*, *Sequence*, and *Band* summarize all the elements of Serra’s work, using ideas of space and time and viewer participation that overall attest to Installation art.

Cai Guo-Qiang

Cai Guo-Qiang (b. 1957) was born in the port city of Quanzhou, China. The rich history of Cai’s hometown has been a great source of inspiration for his work. Cai has said that he is interested “in mining the microcosm of my culture for symbols that can be universally understood.”⁶² Cai studied set design at the Shanghai Drama Institute. He was fascinated with traditional Chinese culture of everyday life such as Taoism, herbal medicines, and feng shui.⁶³ After graduating from the Shanghai Drama Institute, Cai moved to Japan in 1986 where he remained until moving to New York in 1995. Cai’s work fits into the genre of Installation art, most notably through his site-specific works, through the participation of people in the creation of his work and the participation of the viewer, and through his large-scale performance works that are impossible to collect or commodify.

⁶⁰ McShine, “A Conversation about Work with Richard Serra,” 37.

⁶¹ *ibid*

⁶² Alexandra Munroe, “Cai Guo-Qiang: I Want To Believe” in *Cai Guo-Qiang: I Want to Believe* ed. Thomas Krens and Alexandra Munroe, (New York: Guggenheim Museum Publications, 2008), 26.

⁶³ Richard Vine, “China Envy” *Art in America* Vol. 96 Issue 9 (October 2008): 144.

It was when Cai moved to Japan in 1986 that he started to experiment with gunpowder, invented in China and literally meaning, “fire medicine”. He has used this material to “create a radical new form and methodology of art.”⁶⁴ Cai made the gunpowder drawings by laying gunpowder and fuses on fibrous paper and igniting them in a blast where a residue or a drawing of the original matter is left. Cai’s early gunpowder drawings display themes that would later define the artist’s conceptual concerns, such as Chinese folklore and mythology.⁶⁵

Cai’s use of gunpowder also was essential for his explosion events that were site-specific and monumental. *Project for Extraterrestrials* (1989-1999) is a series of explosion events that included up to thirty-two events. These works consist of fireworks and trails of gunpowder that go across landscapes and building facades.⁶⁶

Cai’s goal was “to challenge, disrupt, and imbalance the center of modern and contemporary art” and to challenge the status quo of Eastern art being brought to the West.⁶⁷ These explosions took place in various countries including Japan, France, Germany, England, The Netherlands, South Africa, Austria, and China, in large open spaces as if to be seen from above the earth. The explosions though are transient and last only a few seconds. The transient quality of these explosions that themselves cannot be preserved, fit into the premise that Installation art is hard to collect.

Meteorite Craters Made By Humans On Their 45.4 Hundred Million Year Old Planet: Project for Extraterrestrials No.3 (1990), created in Aix-En-Provence, involved a team of workers and volunteers who dug about forty-five craters or ditches in an open

⁶⁴ Munroe, “Cai Guo-Qiang: I Want To Believe,” 20.

⁶⁵ Alexandra Munroe, “Early Works” in *Cai Guo-Qiang: I Want to Believe* ed. Thomas Krens and Alexandra Munroe, (New York: Guggenheim Museum Publications, 2008), 81.

⁶⁶ Vine, “China Envy,” 144.

⁶⁷ Munroe, “Cai Guo-Qiang: I Want To Believe,” 25.

field. These ditches were covered with gunpowder and each connected to an 800-meter fuse that was detonated at dusk so the fire and smoke were highlighted by the setting sun.⁶⁸ *Reflection-A Gift from Iwaki* (2004) involved local people from Iwaki who helped to excavate the boat from the waters of Quanshou. As Cai grew up in the port city of Quanzhou, he uses boats as metaphoric features in his installations.⁶⁹ For each place the work is installed, these Iwaki locals are the only people authorized to assemble it. Cai's idea behind the involvement of people outside the art world in his work is the "discovery of commonality between people based on one's own cultural background."⁷⁰ Cai introduces new methods into contemporary art exhibitions that "blur the lines between inside and outside, public and artist."⁷¹

Cai's works and exhibitions also call for the participation of the public, another element of Installation art. The exhibitions are "no longer a fixed presentation of objects in a room, but a process of evolution, linked to history and its environment, which calls for the participation of the public."⁷² *An Arbitrary History: River* (2001), is an installation made up of a "river" with past works suspended from the ceiling. This work allows viewers to participate and navigate through this "river" and contemplate the works. Here, Cai manipulates the given space instead of the objects so that "the works

⁶⁸ Michelle Yun, "Meteorite Craters Made By Humans On Their 45.4 Hundred Million Year Old Planet: Project for Extraterrestrials No.3 (1990) entry text in *Cai Guo-Qiang: I Want To Believe*, ed. Thomas Krens and Alexandra Munroe, (New York: Guggenheim Museum Publications, 2008), 136.

⁶⁹ Michelle Yun, "Reflection-A Gift From Iwaki 2004" in *Cai Guo-Qiang I Want to Believe Catalogue* (New York: Guggenheim Museum Publications, 2008), 214.

⁷⁰ Fei Dawei "Amateur Recklessness On the Work of Cai Guo-Qiang" in *Cai Guo-Qiang* (London; New York, Thames & Hudson, 2000), 10.

⁷¹ *ibid*

⁷² *ibid*

and their viewers are subjected to a potential for vitalization.”⁷³ This work creates constant change.

In 1995 Cai moved to New York, on a grant funded by the Asian Cultural Council for a residency at P.S.1 Studio Program. Cai says that with the move his “methods and concerns change with that environment.”⁷⁴ Cai’s work at this time took on a political and social awareness. The first work Cai created in the United States was the series *Century with Mushroom Clouds: Project for the 20th Century* (1996). The work held important symbols of the twentieth century, namely a mushroom cloud, which references the atomic bomb. In this project Cai used gunpowder to create the mushroom effect of a nuclear bomb. The series of miniature mushroom cloud explosions took place in symbolic locations around the United States, including Manhattan. *Venice’s Rent Collection Courtyard* (1999) exhibited at the Venice Biennale was a cultural tribute to the Chinese people but also a political critique of the Chinese government during the Cultural Revolution. In this installation, sculptures were left unfired and disintegrated during the course of the exhibition.⁷⁵ In this work Chinese sculptors trained in official socialist-realist sculpture collaborated with the artist to create these sculptures.

Cai also created large-scale installations that as Mónica Ramírez-Montagut states, “present scenes temporarily inhabited by ‘performers’ (the players in the scenes and also visitors) that are transformed by their journey through Cai’s meticulously choreographed installations.”⁷⁶ The large-scale installation *Cry Dragon/Cry Wolf: The Ark of Genghis*

⁷³ Munroe, “Cai Guo-Qiang: I Want To Believe,” 32.

⁷⁴ Octavio Zaya “Octavio Zaya in conversation with Cai Guo-Qiang” in *Cai Guo-Qiang*, (London; New York: Phaidon Press, 2002), 22.

⁷⁵ Eleanor Heartney, “Cai Guo-Qiang: Illuminating the new China” *Art in America* Vol. 90 Issue 5(May 2002), 95.

⁷⁶ Monica Ramirez-Montagut, “Installations” in *Cai Guo-Qiang: I Want to Believe*” ed Thomas Krens and Alexandra Munroe, (New York: Guggenheim Museum Publications, 2008), 190.

Khan (1996), included in the Hugo Boss Prize biennial at the SoHo Guggenheim, addressed the Western fear of Asian dominance. The work was hung from the ceiling with branches affixed to inflated sheepskin bags, used by ancient Genghis Khan's warriors, connected to three running Toyota engines, which signified the power of Japanese car companies. Through the allegory of Genghis Kahn and the cautionary tale of "The Boy Who Cried Wolf," Cai presents cultural and political conflicts of practical life.⁷⁷ The installation is a critique on the West's grave imagery of China at the same time inferring the undercurrent of conflict that characterized the U.S- Asia relations in the era of globalization.

Another element of Cai's large-scale works is the idea of unresolved conflicts. In the works *Inopportune: Stage One* (2004) and *Inopportune: Stage Two* (2004), both displayed at the Massachusetts Museum of Contemporary Art, Cai composed a static scene that implied movement when placed in a linear sequence and that simultaneously expanded both in space and time.⁷⁸ In *Inopportune: Stage One* the conflict is the display of a car explosion but through a spectacular display of light and color. This work is the largest work to date with a focus on the issue of terrorism post 9/11. Nine cars are displayed hanging horizontally in a stop-motion sequence. The first car is motionless on the ground and the next cars progress through the sequence in mid-air with lights flashing through, mimicking an explosion. The lights that come out of the car start out with white light that grows warmer and more vibrant and then quiets down to colder soft colors as

⁷⁷ Dewei, "Amateur Recklessness," 10.

⁷⁸ Ramirez-Montagut, "Installations," 191.

the explosion dies down.⁷⁹ Viewers reflect on the abhorrence of the violence as well as the aesthetic attraction of the work.

In *Inopportune: Stage Two* (2004), Cai displayed nine life-sized stuffed tigers that are under attack and moving in pain from the arrows in their bodies. The conflict is again of the embellishment created through the killing of tigers. The work is based on a Chinese folklore tale of a hero that killed a man-eating tiger. The installation though portrayed the tragedy of the tigers instead of the heroism in the defeat. Both these *Inopportune* pieces are staged so that the conflicts are evident and open for discussion and reflection. Cai's installations are created as a participatory space for visitors to ponder the contradictions.⁸⁰

Olafur Eliasson

Olafur Eliasson (b. 1967) the Danish-Icelandic artist was born in Copenhagen and moved to Iceland, where his artistic use of natural elements such as light, wind, heat, and water was influenced by its landscape.⁸¹ Eliasson studied at the Royal Danish Academy of Fine Arts from 1989 until 1995. He moved to Germany in 1993 and resides today in Berlin.

Eliasson is best known for his installations and large-scale immersive environments that explore the act of perceiving, calling for an actively engaged spectator who is principle to the artwork.⁸² His work destabilizes the viewer's perception of self

⁷⁹ Michelle Yun, "Inopportune: Stage One 2004" in *Cai Guo-Qiang: I Want to Believe* ed. Thomas Krens and Alexandra Munroe, (New York: Guggenheim Museum Publications, 2008), 218

⁸⁰ Ramirez-Montagut, "Installations," 191.

⁸¹ Madeleine Grynsztejn, "(Y)Our Entanglements: Olafur Eliasson, The Museum, and Consumer Culture" in *Take Your Time: Olafur Eliasson*, ed. Madeleine Grynsztejn (San Francisco Museum of Modern Art: Thames & Hudson, 2007), 15.

⁸² Grynsztejn, "(Y)Our Entanglements," 14.

and space. In addition, his work also explores differences between indoors and outdoors where natural elements are brought into a museum setting. Eliasson's work fits into the genre of Installation art through the necessary engagement of the spectator who becomes part of the work. Through the installation, the viewer contemplates the environment and one's relationship with the space. A critique on museums is another element of Installation art that is found in Eliasson's work.

It is not a coincidence that many of Eliasson's works are titled with possessive pronouns like "your". It is through the title that the viewer is cast in a principle role in the aesthetic production of the work through contemplation and reflection.⁸³ *Your sun machine* (1997) is such an example. The work was exhibited at Marc Foxx Gallery in Los Angeles where Eliasson cut a hole in the roof of the gallery to let the sun shine in and become a patch on the floor that moved across the room as the day progressed. However, upon reflection, spectators can understand that although it looks like the sun is moving it is actually their own movements and activities that make the sun appear as it does.⁸⁴ In 2003 Eliasson installed *The weather project* in the Turbine Hall of the Tate Modern in London as part of its Unilever Series. Through this work Eliasson engineered a landscape of the sun and clouds in the space of the Museum. It looked like a huge sun emitting light and occasionally covered by a cloudlike mist. The work encouraged the audience to engage with it and many people were found participating in various actions that were out of character in a museum setting, such as lying on the floor of the Turbine

⁸³ ibid

⁸⁴ Daniel Birnbaum, "Heliotrope" in *Take Your Time: Olafur Eliasson*, ed. Madeleine Grynsztejn (San Francisco Museum of Modern Art: Thames & Hudson, 2007), 137.

Hall.⁸⁵ The work also challenged the decorum usually set in museum spaces. Here people were acting as if they were outdoors.

Eliasson does not hide how he produces the effects in his works, usually exposing the work's elements. For example, *Beauty* (1993), which has been re-created in different spaces, always has the hose and electric light visible. The work sets up an optical phenomenon where light shines through drops of water coming down from a hose creating a rainbow. The installation confronts the viewer with what it is, a combination of light and water to create color.⁸⁶ Daniel Birnbaum explains that this work emphasizes perception and the audience's active involvement in the process as the work depends on the viewer's movements for the optical illusion to appear.⁸⁷ Klaus Biesenbach and Roxana Marcoci explain that the work posits the very act of looking as a social experience.⁸⁸

Bringing "nature" inside a museum setting also involves the active spectator in Eliasson's art. Many of the works using natural materials question what really is natural. *Notion Motion* (2005), installed in the Museum Boijmans Van Beuningen, in Rotterdam, Netherlands is an ensemble of three rooms each with a shallow pool of water with lamps reflecting different wave patterns in each space. However, the wave patterns were created not by natural elements but through other modes, such as the sponge in the first room that would splash in the water causing the water to shift or the uneven floorboards

⁸⁵ Pamela M. Lee, "Your Light and Space" in *Take Your Time: Olafur Eliasson*, ed. Madeleine Grynsztejn (San Francisco Museum of Modern Art: Thames & Hudson, 2007), 36.

⁸⁶ Birnbaum, "Heliotrope," 132.

⁸⁷ *ibid*

⁸⁸ Klaus Biesenbach and Roxana Marcoci "Toward the Sun: Olafur Eliasson's Protocinematic Vision" in "Take Your Time: Olafur Eliasson" ed. Madeleine Grynsztejn (San Francisco Museum of Modern Art: Thames & Hudson, 2007), 186.

that when walked on sets off machinery to produce movement in the water.⁸⁹ Mieke Bal states that the work creates “tensions between ‘real’ and ‘natural’ (controlled movement and the randomness of water made to move by mechanical devices in conjunction with visitor behavior).”⁹⁰

Moss wall (1994) is another example of the use of natural materials that comments on nature. This work uses real moss. However, the moss is placed on walls and grows vertically. The work allows people to reflect on this natural material that is placed unnaturally in the museum changing the natural element of it. This same principle is seen in *Reversed Waterfall* (1998) shown at P.S.1 Contemporary Art Center in the exhibit *Take Your Time: Olafur Eliasson*. The waterfall, a natural element seen in nature is here made unnatural by changing the flow of the water to move upward instead of downward, through the use of a hose, pumps and electricity. Eliasson states that by bringing in natural materials such as a waterfall and then making the water run upwards he “can get people to reflect on these phenomena.”⁹¹ He elaborates that by displacing natural materials in a museum context one can realize that nature is not just outside but is “organized by our individual perspectives.”⁹²

Eliasson focuses on the shift in perspective within the architecture of museum space in many of his works that incorporate light. In *Remagine* (2002), Eliasson explores the geometry of perspective through theatre lamps that are placed in the center of the gallery that project different shapes on the wall. A computer controls the sequence of

⁸⁹ Mieke Bal, “Light Politics” in *Take Your Time: Olafur Eliasson*, ed. Madeleine Grynsztejn (San Francisco Museum of Modern Art: Thames & Hudson, 2007),153-54.

⁹⁰ Bal, “Light Politics,” 159.

⁹¹ The Museum of Modern Art, Red Studio: “Talk to Me: An Interview with Olafur Eliasson” <<http://redstudio.moma.org/talktome/eliasson/index.php?URL=4>> (accessed March 23, 2009).

⁹² *ibid*

these shapes that overlap on the wall creating distortions in perspective.⁹³ Different hues of white light are used in these shapes that overlap to create an illusion that the shapes are three-dimensional. The viewer is disoriented between the two-dimensional and three-dimensional space that seems to be there.⁹⁴ This work encourages the spectator to contemplate the space.

Take Your Time (2008) also plays with architecture, time and space. Displayed at P.S.1 in the exhibit *Take Your Time: Olafur Eliasson*, this work is comprised of a large circular mirror attached to the ceiling that rotates slowly on its axis. The viewer's sense of space is disoriented as they pass beneath the slowly moving piece.

⁹³ Grynstejn, "(Y)Our Entanglements," 17.

⁹⁴ Bal, "Light Politics," 173.

Chapter Three: Working within Museum Spaces

As Installation art has grown in size and artists are creating more conceptual and abstract works, the need for space is critical to museums. However, many museums were not built with large-scale pieces of art in mind. Some museums are embarking on expansion projects to provide more space for their growing collections. Museums are becoming more resourceful with their spaces in order to exhibit Installation art. When exhibiting Installation art, museums must plan for a longer and larger installation. This chapter will describe the problems associated with museum space that Installation art necessitates. The exhibitions “Richard Serra Sculpture: Forty Years” (July 7, 2007- September 17, 2007) at the Museum of Modern Art, “Cai Guo-Qiang: I Want to Believe”(February 22, 2008- May 28, 2008) at the Solomon R. Guggenheim Museum, and “Take Your Time: Olafur Eliasson” (April 20, 2008- June 30, 2008) at P.S.1 Contemporary Art Center all incorporated Installation art. These three exhibitions required the museums to creatively work with their institutions’ space, in order to bring the works safely inside the buildings without causing permanent damage, to install the works in a manner that reflects the vision of the artist. This chapter will address the resourcefulness of each of the museums to create the exhibition spaces for Installation art.

The Museum of Modern Art

The mission of the Museum of Modern Art is to “dedicate itself to being the foremost museum of modern art in the world” and “seeks to create a dialogue between the established and the experimental, the past and the present, in an environment that is responsive to the issues of modern and contemporary art, while being accessible to a public that ranges from scholars to young children.”⁹⁵ The exhibition “Richard Serra: Forty Years” (July 7, 2007-September 17, 2007) certainly fits within this mission.

This exhibition was a survey of Richard Serra’s work over the course of the last forty years. The exhibition encompassed different stages of Serra’s career as a sculptor, from his early experimentations with nontraditional materials such as rubber and lead, to his work with industrial materials, and finally to his focus on creating large-scale works made of steel including those made for specific sites.⁹⁶ MoMA installed the works in the Abby Aldrich Rockefeller Sculpture Garden and on the second and sixth floors of the Museum. Three large-scale works were created specifically for this exhibition and were designed for the second floor of the Museum. This author interviewed Corey Wyckoff; Senior Registrar Assistant who worked on this exhibition, who described the procedures MoMA underwent to install Richard Serra’s large-scale works.

Wyckoff explained that during the planning stages of MoMA’s expansion project, Kurt Varnedoe, then Chief Curator of Painting and Sculpture, anticipated the need for MoMA to exhibit large-scale sculptures, with the art of Richard Serra specifically in

⁹⁵ Museum of Modern Art, “About MoMA” <<http://www.moma.org/about/index> > (accessed November 24, 2008).

⁹⁶ Museum of Modern Art. “Online exhibition” <<http://moma.org/exhibitions/2007/serra/flash.html>> (accessed November 24, 2008).

mind.⁹⁷ This was the first time that a museum situated in an urban environment with many space constraints designed new gallery spaces for a specific artist. In order to accomplish this plan, the Museum of Modern Art hired architect Yoshio Taniguchi. The expansion gave the museum 630,000 square feet of new space. To accommodate the larger scale modern and contemporary works, Taniguchi created distinct gallery spaces in the David and Peggy Rockefeller Building to house the main collection and temporary exhibition galleries.⁹⁸ Specifically, the second floor of the six level building was designed for large-scale exhibition works. In his review of the Serra exhibit at the Museum of Modern Art, Jerry Saltz commented that the Museum accomplished its mission to build its second floor with its open spaces, high ceilings and super-reinforced floor so that it could “accommodate monumental installations and gigantic sculptures...”⁹⁹ Kynaston McShine, Chief Curator at Large at the Museum of Modern Art, and organizer of the Serra exhibition explained that the exhibition was initiated by Kirk Varnedoe who “considered it a priority to acknowledge Serra’s creative importance to the art of our time.”¹⁰⁰ McShine added that the specific architectural elements on the second floor made to accommodate large-scale works that Varnedoe insisted on, was a driving force to have an exhibition of Serra’s work close to the Museum’s reopening.

In explaining the early planning for the installation of Richard Serra’s work on both the second and sixth floors of the Museum, Wyckoff stated that MoMA purchased the property just west of the main building, demolished the existing buildings there,

⁹⁷ Corey Wyckoff, email message to author, September 9, 2008.

⁹⁸ Museum of Modern Art. “About MoMA The New MoMA” <http://www.moma.org/about_moma/newmoma.html> (accessed November 24, 2008).

⁹⁹ Jerry Saltz, “Buena Serra,” *New York Magazine on the Web*, June 7, 2007.

<<http://nymag.com/arts/art/reviews/33126>> (accessed November 24, 2008).

¹⁰⁰ Kynaston McShine, “Acknowledgments,” in *Richard Serra Sculpture Forty Years* ed. Kynaston McShine and Lynne Cooke (New York: The Museum of Modern Art: 2007), 9.

leaving a vacant lot.¹⁰¹ The newly designed building also included a forty-foot access door on the west side of the Museum, providing access to the second floor directly from this empty lot. This proved extremely helpful for the Richard Serra exhibition, as the three large-scale sculptures: *Sequence* (2006), *Torqued Torus Inversion* (2006), and *Band* (2006) were brought through this large access door by way of a platform twenty feet high. This platform was constructed in the empty lot with several shipping containers, I-beams, and a wood block foundation. Serra and Budco Enterprises, the rigging company Serra employs for all of his exhibitions, found that the only way to get these sculptures inside was to lift each of the individual plates on this platform and then bring them in through the access door.¹⁰²

Another important procedure necessary for the exhibition was the installation of the three steel works that were to be set up on the sixth floor: *Delineator* (1974-75), *Equal Parallel: Guernica Bengasi* (1986), and *Circuit II* (1972-86). Because these works were too large and heavy to be brought up through the freight elevator, the riggers designed a pulley system that would allow the pieces to be lifted up through the elevator shaft. In order to allow the pulley system to work, a wall on the ninth floor of the Museum had to be demolished.¹⁰³

To accommodate the trucks that were bringing the art into the empty lot of the Museum, security measures were set up as well. Placing cones and “no parking” signs secured space outside of the lot on 54th Street next to the Museum. These preceding procedures and access were necessary for the successful installation of the Serra exhibition.

¹⁰¹ Corey Wyckoff, email message to author, September 9, 2008.

¹⁰² *ibid*

¹⁰³ *ibid*

Solomon R. Guggenheim Museum

The mission of the Solomon R. Guggenheim Foundation is to

“promote the understanding and appreciation of art, architecture, and other manifestations of visual culture, primarily of the modern and contemporary periods, and to collect, conserve, and study the art of our time. The Foundation realizes this mission through exceptional exhibitions, education programs, research initiatives, and publications, and strives to engage and educate an increasingly diverse international audience through its unique network of museums and cultural partnerships.”¹⁰⁴

The Cai retrospective titled “Cai Guo-Qiang: I Want to Believe” (February 22, 2008-May 28, 2008) with over eighty pieces of art filling most of the Guggenheim Museum most certainly aligns with this mission. The first solo show devoted to a Chinese-born artist also showed how the Guggenheim was willing to take risks with the installation of eight large-scale installations and pushed the boundaries of its space.

Thomas Krens, the Director of the Guggenheim Foundation at the time, stated that “right now Cai Guo-Qiang is one of the most powerful artist operating anywhere in the world, and this retrospective at the Guggenheim is designed to make that point.”¹⁰⁵ The site-specific exhibition presented the full spectrum of Cai Guo-Qiang’s work, including his gunpowder drawings, photographs and video of explosion events, and large-scale installations. The exhibition description on the Guggenheim’s website stated that Cai

¹⁰⁴ Solomon R. Guggenheim Museum, “Mission Statement,” <<http://www.guggenheim.org/guggenheim-foundation/mission-statement>> (accessed October 19, 2008).

¹⁰⁵ Solomon R. Guggenheim Museum. “Cai Guo-Qiang: I Want to Believe: Video”. Co-directed and edited by Rachel Shuman and co-directed and photographed by Thomas Piper and David Sampliner, <<http://pastexhibitions.guggenheim.org/cai/cai.html>> (accessed October 19, 2008).

“presents art as a process that unfolds in time and space, dealing with ideas of transformation, expenditure of materials, and connectivity.”¹⁰⁶

Jessica Ludwig, Director of Exhibition Planning and Implementation, described the month-long installation process for these large-scale works. These installation pieces occupied the first three levels of the rotunda’s ramp and three galleries in the Annex building. Ludwig explained that because the space is so distinctive, the Guggenheim met specific challenges.¹⁰⁷ The fabricators on staff, the hired engineers, Cai Guo-Qiang and his studio staff, and the curators all worked together to assure that the artist’s vision would be met while still maintaining the integrity of the Museum’s space.

To understand the space of the Guggenheim better and how the Museum used its space to install the Cai Guo-Qiang exhibition, it is important to consider the Museum’s expansion project that took place between 1990 and 1992. The expansion of the Guggenheim was not an easy project. The decision to change or add to Frank Lloyd Wright’s iconic architectural building (1943-1958) and landmark was deliberated with extreme caution. The expansion was approved in a court decision in 1988 after years of legal battles. This project, undertaken by Gwathmey, Segal & Associates in 1990 was a renovation of the original building as well as an addition of new galleries in an annex building behind the Wright building. The project also opened up a smaller rotunda connected to the larger rotunda, previously used for office space, to be used for more gallery space as well. Michael Kimmelman, art critic for the New York Times, wrote in 1992 that in overseeing the expansion, Thomas Krens had an “awareness for the need for

¹⁰⁶ Solomon R. Guggenheim Museum, “Cai Guo-Qiang: I Want to Believe: Overview,” <http://www.guggenheim.org/exhibitions/exhibition_pages/cai_overview.html> (accessed October 19, 2008).

¹⁰⁷ Jessica Ludwig, email message to author, August 3, 2008

diverse kinds of spaces for displaying modern works...”¹⁰⁸ Mr. Krens understood that modern works needed more space and he wanted to see it dealt with in the expansion. Although many critics were upset that the construction of the annex building would impinge on the architecture of the original building, the renovation gave much needed flexibility to the layout of the Guggenheim. Prior to this change, visitors had to follow a route along the spiral ramp of the Wright building without much flexibility to stroll through the galleries.¹⁰⁹ With the new renovation, visitors could move in and out freely between the spiral galleries of the Wright building and the boxy galleries of the Gwathmey building.¹¹⁰ The renovation also created gallery space with straight walls and flat floors that gave curators more freedom to exhibit more works from the permanent collection.

While the Guggenheim did add considerable space through the expansion project, the issue of space as it concerned the installation of the large-scale works in the Cai Guo-Qiang exhibition, was still an issue. There was much dialogue among Guggenheim staff, the artist, and his technical director on how the pieces would be installed in the Museum space. The planning for the exhibition and the layout took approximately a year to complete as Ludwig explained. Ludwig discussed in an interview with the author how the large-scale works were brought into the Museum and the pre-planning procedures that took place to fit works in the Museum’s space.

¹⁰⁸ Michael Kimmelman “Art View; At the Guggenheim, Bigger May Be Better” *The New York Times on the Web*, June 21, 1992, <<http://query.nytimes.com/gst/fullpage.html?res=9E0CE6DF133DF932A15755C0A964958260&sec=&sp on=&pagewanted=1>> (accessed November 24, 2008).

¹⁰⁹ Paul Goldberger “Architecture View; The Liberation of the Guggenheim” *The New York Times*, June 21, 1992, <<http://query.nytimes.com/gst/fullpage.html?res=9E0CE7DB153DF932A15755C0A964958260&sec=&sp on=&pagewanted=3>> (accessed November 24, 2008).

¹¹⁰ *ibid*

In order to bring the large-scale works: *Inopportune Stage One* (2004), *Borrowing Your Enemies Arrows* (1998), *An Arbitrary History: River* (2001), and *Reflection- A Gift from Iwaki* (2004) into the Guggenheim, a bridge was built on the 88th Street entrance to the Sackler Center for Arts Education. This bridge went over the planter and into the Museum through a removable floor-to-ceiling window on Fifth Avenue.¹¹¹ Because the installation of the pieces took place in the winter a special air lock had to be built as well to maintain the climate in the Museum.¹¹²

For the installation of the exhibition copy of the work *Inopportune Stage One* (2004), the largest installation piece that Cai has done to date, many elements were taken into account to fit the work in the space. As previously stated (see p. 18), the work references the idea of terrorism and the reality that terrorism plays in our everyday life.¹¹³ Thomas Krens co-curator for this exhibition saw the work installed horizontally at the Massachusetts Museum of Contemporary Art and thought it would work well installed vertically in the Guggenheim's rotunda. Together with Cai's technical director and the Museum's fabrication team, they figured how best to hang the work. The work consists of nine cars with LED light rods drilled into holes in the cars to simulate a car bomb explosion. Two important questions were discussed during the months of preparations for this installation: 1) where should the cars hang so that the work fits with the vision of the artist? 2) how will the loads and trajectory of each of the cars be distributed and attached to the building so that there is no risk to the building? The Fabrication department headed by Christopher George, Chief Fabricator and Peter Read, Manager of

¹¹¹ Jessica Ludwig, email message to author, July 14, 2008.

¹¹² *ibid*

¹¹³ Art:21, *Art in the Twenty-First Century:the Artists*, "Spirituality, Chaos & "Inopportune," <<http://www.pbs.org/art21/artists/cai/clip1.html#>> (accessed February 22, 2009).

Exhibitions Fabrications and Design, consulted engineers to determine the safe distribution of weight for each of the cars. Temporary staff, with expertise as rope access technicians, including the hired Canadian team Vertika, rigged up the cars into place.

Alexandra Monroe, co-curator of the exhibition stated that Cai “labored very carefully over the exact placement of these cars, their relationship to not only each other but to the space and to us.”¹¹⁴ Originally the artist wanted seven Ford cars suspended in the air and two on the ground but a study of this setup indicated that there was not enough room in the space to fit all of those cars. The artist did not want to use fewer cars; instead, smaller cars were used that fit within the space and met the artist’s vision. The final installation had seven cars suspended down in the rotunda and two cars on the ground, one on the floor of the rotunda and the other on ramp six.

An Arbitrary History: River (2001) was another piece that needed a great deal of pre-planning before its installation. This work consists of many individual pieces including a “river” made of fiberglass and bamboo filled with water, a boat made of yak skin, birds in a cage and snakes in a bag, and an assortment of Cai’s past works suspended from the ceiling. For this interactive installation, Cai took on the role of curator, suspending a selection of his past works from the ceiling above the riverbed that fit within the specifications of the gallery space.¹¹⁵ This work offers an opportunity for contemplation, as visitors can view the selection of works or “arbitrary history” by taking a boat ride through the space.¹¹⁶ Ludwig explained the various issues regarding the

¹¹⁴ Solomon R. Guggenheim Museum, “Cai Guo-Qiang: I Want to Believe: Video.” Co-directed and edited by Rachel Shuman and co-directed and photographed by Thomas Piper and David Sampliner, <<http://pastexhibitions.guggenheim.org/cai/cai.html>> (accessed October 19, 2008).

¹¹⁵ Michelle Yun, “An Arbitrary History: River,” in *Cai Guo-Qiang I Want to Believe*, ed. Thomas Krens and Alexandra Munroe, (New York: Guggenheim Museum Publications, 2008), 210.

¹¹⁶ *ibid*

installation of this work. This piece was designed specifically for the space on the second level of the Annex building right next to the Thannhauser Gallery. Because this work involved water, particular attention was given to what would happen if the “river” failed and water flooded into the gallery. The “river” was tested before its permanent installation. Although there was an initial leak, with further attention the “river” was plugged up and permanently protected against leaks. The Guggenheim also wrote up a specific emergency plan in case there were problems with this piece during the exhibition.

Another issue with *An Arbitrary History: River* was the participatory element of this work that gave visitors the chance to take a boat ride through the “river” to observe the other components of the piece hanging from the ceiling. Because there was going to be a lot of activity in this gallery space and a lot of people going on the boat, the Guggenheim contracted bigger guards to work in this gallery who were specifically trained to deal with this installation piece. Two guards were placed in this room- one to help people get in and out of the boat and another walking around the room.

The Guggenheim also needed to discuss with Cai and his technical team the logistics regarding the installation of the work *Borrowing Your Enemy’s Arrows* (1998), a suspended fishing boat pierced with over 3,000 arrows. Cai explained that this work was made to illustrate the Chinese expression “A straw boat borrows arrows” but because he could not think of a good English translation of this idea, the work became known as “Borrowing your Enemy’s Arrows”, which unbeknownst to the artist had provoked negative reactions by Americans.¹¹⁷ The work alludes to the legendary story of the

¹¹⁷ Fei Dawei, “To Dare to Accomplish Nothing” in *Cai Guo-Qiang*, (London; New York: Thames & Hudson, 2000), 128-30.

Chinese general Zhuge Liang and teaches the lesson of the importance of resourcefulness and strategy.¹¹⁸ This work was on loan from the Museum of Modern Art in New York. MoMA did not want the work to be taken apart so it had to be brought through the window on Fifth Avenue. However, by not taking the boat apart, the installation was more difficult. There was much discussion on where best to install this work. Originally, Cai wanted it hung in the rotunda but the curators thought it would be too crowded, given that the work *Inopportune Stage One* was also installed in that space. The Museum decided to install the work in the High Gallery, which took weeks to figure out.¹¹⁹ Due to the large size and weight the piece could not fit inside the gallery by going up the rotunda ramp. Engineers had to build scaffolding on the rotunda floor and rig the boat into the High Gallery.

P.S.1 Contemporary Art Center

Through the advocacy of new ideas and trends and the pursuit of emerging artists, new genres, and adventurous new work, P.S.1 Contemporary Art Center shows its devotion by displaying experimental innovations in contemporary art.¹²⁰ P.S.1 was originally a school building in Long Island City Queens. It is one of the largest and oldest contemporary art institutions in the United States. Alana Heiss founded the Museum in 1971 as the Institute for Art and Urban Resources Inc, which later would become P.S.1 Contemporary Art Center. The Museum was devoted to creating and organizing exhibitions in underutilized and abandoned spaces across New York City. In

¹¹⁸ Michelle Yun, "Borrowing Your Enemy's Arrows" in *Cai Guo-Qiang: I Want to Believe*, ed. Thomas Krens and Alexandra Munroe, (New York: Guggenheim Museum Publications, 2008), 204.

¹¹⁹ Jessica Ludwig, email message to author, July 14, 2008.

¹²⁰ P.S.1 Contemporary Art Center, "About: P.S.1 Profile," <<http://www.ps1.org/about/>> (accessed November 24, 2008).

1976 P.S.1 had its first major exhibition in its permanent location in Long Island City titled *Rooms*, which offered the opportunity for artists to create site-specific works in the Museum space.

The space of the Museum fits within its mission that

“devotes its energy and resources to displaying the most experimental art in the world. A catalyst and an advocate for new ideas, discourses, and trends in contemporary art, P.S.1 actively pursues emerging artists, new genres, and adventurous new work by recognized artists in an effort to support innovation in contemporary art. P.S.1 achieves this mission by presenting its diverse program to a broad audience in a unique and welcoming environment in which visitors can discover and explore the work of contemporary artists.”¹²¹

The Museum’s many exhibitions focuses on artists’ retrospectives, site-specific installations, and historical surveys. In 1997 P.S.1 underwent a renovation of its building by adding a large outdoor gallery, a new entryway, and a two-story project space. The renovation did not change the original architecture of the building or the distinct classroom size gallery spaces. Today many exhibitions at P.S.1 include Installation art.

“Take your time: Olafur Eliasson” (April 20, 2008 – June 30, 2008) was the first comprehensive survey in the United States of the works of Olafur Eliasson. Eliasson creates large-scale environments, installations, sculptures, and photographs that recreate the extremes of atmosphere and landscape in his native Iceland and at the same time depicts the sensory experience of the work itself.

The exhibition in New York was split between the spaces at the Museum of Modern Art and P.S.1 Contemporary Art, an affiliate of MoMA that acts “to extend the reach of both institutions, and combine P.S.1’s contemporary mission with MoMA’s

¹²¹ *ibid*

strength as one of the greatest collecting museums of modern art.”¹²² The exhibition at the Museum of Modern Art and P.S.1 featured thirty-eight works including six newly created works.

At P.S.1, the exhibition was spread throughout the third floor galleries and continued in the basement of the Duplex and Vault galleries. The exhibition explored the artist’s ideas of space and his use of simple technologies like glass, lamps and mirrors to do that.¹²³ Eliasson’s pieces “recontextualizes elements such as light water, ice, fog, stone, and moss to create unique situations that shift the viewer’s perception of place and self.”¹²⁴ Through the display of Eliasson’s work, the exhibition complements the Museum’s mission of exhibiting up and coming work by contemporary artists.

As the exhibition was exhibited at both the Museum of Modern Art and P.S.1 the two curators of the exhibition, Klaus Biesenbach, Chief Curator, Department of Media and Roxana Marcoci, Curator, Department of Photography, from the Museum of Modern Art, worked closely with Eliasson and his studio to decide what works would best fit which institution. The curators explain in the Press Release for the exhibition:

“During the last two years we have worked directly with the artist and the Studio Olafur Eliasson to conceive one exhibition in two locations- MoMA and P.S.1- by catalyzing the curatorial methodologies and spatial perspectives of the Kunsthauus and the Kunsthalle and thus arriving at an exhibition that is about the artist’s process and is at once a scholarly retrospective, an experimental site, and a laboratory.”¹²⁵

Summer Kemick, Registrar at P.S.1 and Kerry McGinnity, Assistant Registrar at MoMA, explained some of the issues regarding the space prior to the installation process at P.S.1

¹²² *ibid*

¹²³ Klaus Biesenbach and Roxana Marcoci, “Toward the Sun: Olafur Eliasson’s Protocinematic Vision” in *Take Your Time Olafur Eliasson*, ed. by Madeline Grynsztein, (San Francisco Museum of Modern Art: Thames and Hudson, 2007), 189.

¹²⁴ Museum of Modern Art, “Press Release”

<http://moma.org/press/images/press/PRESS_RELEASE_ARCHIVE/Eliasson.Release.Letter_FINAL.pdf> (accessed November 24, 2008).

¹²⁵ *ibid*

and the solutions that the Museum employed. Kemick expressed in this author's interview that the decision to exhibit the works installed at P.S.1 fit well with both the Museum's mission of exhibiting experimental works of innovative and contemporary artists as well as the ability for P.S.1 to utilize the production based crew of freelance installers to build or make anything needed for an installation as quickly as possible.¹²⁶ Kemick also stated that the space at P.S.1 was better equipped to exhibit the water works, *Reversed Waterfall* (1998) and *Beauty* (1993), since their installation in the basement galleries assured that no other works could be damaged, something that may have been hard to do at MoMA. Another consideration that Kemick addressed is the fact that P.S.1 is used to dealing with various types of Installation art made with all different kinds of materials whereas MoMA is just starting to move in that direction with exhibitions that include more contemporary art.¹²⁷

The installation process of the various works displayed at P.S.1 was different than what took place at MoMA and the Guggenheim, considering the Eliasson installations were not as large-scale as many of the works of Richard Serra and Cai Guo-Qiang. Here the use of heavy machinery was not needed. However, there were still challenges to the space and issues to solve before the installation of many of the works could take place.

Take Your Time (2008) specially made for the space at P.S.1, is a large circular mirror affixed to the ceiling of the gallery at an angle that rotates slowly on an axis in a way that destabilizes viewer's perception of the space. Eliasson explained in an interview that this piece is a model that "sets up a spatial situation with different

¹²⁶ Summer Kemick, interview by the author, November 20, 2008.

¹²⁷ *ibid*

dimensions and coordinates from what we usually expect of that space.”¹²⁸ The piece was installed on the third floor in the largest gallery space. However, it was completed just before it was transported to the Museum, which did not leave a lot of time to take measurements. Once at P.S.1, the aluminum frames were too big to fit through the Museum’s doors. The installers from P.S.1 were able to create a pulley system to pull the frames up through the third floor window.

Soil quasi bricks (2003), a work comprised of hundreds of hexagonal fired compressed soil tiles and wood placed from floor to ceiling in an enclosed room, required the Museum to build temporary walls to make the room smaller so that the tiles could fill the entire space. Another element is the natural material of soil that is now brought inside. Viewer’s can reflect on Eliasson’s use of these materials normally found outside that are now brought in. *The natural light setup* (2008), made to hold a million dollars worth of fluorescent lights coming down from the ceiling emitting different hues of white light through a pre-programmed rhythm required another solution. A drop ceiling made of plywood had to be built to hold all the lights of this work. This work like *The light setup* (2005) breaks from the conventional white cube gallery space described by Brian O’Doherty as “hermetic, clean, white-walled, evenly lit...” and puts the lights itself on display through the delivery of different shades of white light.¹²⁹

Kemick also described the necessary procedures to install *Beauty* (1993), consisting of a spotlight shining through a fine mist of water coming down from the ceiling. This work was exhibited in the Vault gallery. In order to set up the pumps that would pump the water through the nozzles, a false floor was built where the hose and

¹²⁸ Artkrush Issue #87, “Interview with Olafur Eliasson June 25, 2008,” < www.artkrush.com/168049 > (accessed November 17, 2008).

¹²⁹ Madeleine Grynsztejn, “(Y)Our Entanglements,” 24.

pumping system were connected to a drain that ran across the length of the floor. The floor gradually sloped toward the center so that the water would drain directly into the pumping system. The floor was then covered with rubber bricks that could also absorb the water.

According to Kerry McGinnity, Eliasson did not want to place a light over the steps leading down into the Vault gallery because he believed it would change the appearance of the work.¹³⁰ Although Eliasson believed that the darkened steps should be a part of the piece, the Museum required illuminated steps for the visitors' safety.

Inverted Berlin sphere (2005) was placed in the corner of a room on the third floor. The work was set up in a darkened space where a torqued sphere surrounding a lamp was attached to the ceiling that radiated light through the individual reflective components creating patterns throughout the entire space. This work constructs space, using light, and as spectators move around the space the reflections of light change.¹³¹ Eliasson said that his works involve an engaged spectator who becomes the source of the artwork.¹³² As the doorway leading to this room was not wide enough for the lamp, the wall next to the door had to be broken down in order to bring the work inside. Once the work was installed, the wall was rebuilt, but destroyed again for the de-installation.

Another challenge to the installation process was the issue of high-powered electricity. A particular example of this need was Eliasson's installations *Reversed*

¹³⁰ Kerry McGinnity, interview by the author, October 16, 2008.

¹³¹ Annelie Lütgens, "Twentieth-Century Light and Space Art" in *Olafur Eliasson Your Lighthouse Works with Light 1991-2004*, (Ostfildern-Ruit, Germany : Hatje Cantz, 2004),39.

¹³² Olafur Eliasson and Robert Irwin, "Take Your Time: A Conversation" in *Take Your Time: Olafur Eliasson*, ed. Madeleine Grynsztejn (San Francisco Museum of Modern Art: Thames & Hudson, 2007), 58.

Waterfall and *The natural light setup*.¹³³ These works required more power, a lot of rewiring as well as electrical conversions.

An issue arose with the work, *Reversed Waterfall* (1998) a manmade waterfall built on scaffolding that through a system of pumps and hoses placed on each of the four levels reverses the flow of water to flow upwards instead of down. The system required the use of electric currents in order to work. The original pump was extremely old and was not pumping enough water. The installers converted the pump but it still did not work properly to reverse the flow of water. Therefore, P.S.1 bought a custom-made pump but the installation of this new pump was not ready in time for the opening. The artist refused to allow visitors to view this non-functioning work. As a temporary solution the Museum placed boards blocking the view of the work from the first floor until it was working.

The Museum of Modern Art, the Guggenheim Museum, and P.S.1 Contemporary Art Center have taken extensive measures to ensure that the installations made for the three exhibitions “Richard Serra Forty Years: Sculpture”, “Cai Guo-Qiang: I want to believe” and “Take your time: Olafur Eliasson” would fit within their spaces. These examples demonstrate the resourceful planning that these museums undertake to exhibit Installation art through a description of both the problems that these museums faced with their spaces as well as their solutions.

¹³³ Summer Kemick, interview by the author, November 20, 2008.

Chapter Four: The Installation Process

As the Museum of Modern Art, the Guggenheim Museum, and P.S.1 Contemporary Art Center each had different types of works to install, specific artist requirements, personnel issues, and various factors to take into account that go into every exhibition such as, noise, budget, injury, insurance and damage, the implications for each institution regarding a successful installation were different. An overview of the installation process of these three exhibitions will highlight the implications each museum faced as well as portray their ingenuity in the installation procedures for the Installation art within each exhibition.

“Richard Serra Sculpture: Forty Years” Installation Process

For the installation of the large-scale steel works on the second and sixth floors, Museum of Modern Art staff worked closely with Richard Serra and Budco Enterprises. Contracting the riggers from Budco was fit into the exhibition budget from the start of the exhibition, since Serra requested them.¹³⁴ The installation for both floors began in early April 2007 and was completed at the end of May 2007 for the opening in June 2007. MoMA staff coordinated the arrival of the plates for the second floor installation, provided the security access for the Budco crew, prepared the space for installations on the sixth floor, worked with engineers to find support beams for the installations, and prepared the ninth floor to allow Budco access to the freight elevator.¹³⁵ The riggers did all the actual installation of the works on the second floor and the three large-scale works on the sixth floor, employing all the heavy machinery. During the installation process, all

¹³⁴ Corey Wyckoff, email message to author, January 22, 2009.

¹³⁵ Corey Wyckoff, email message to author, February 10, 2009.

other galleries that were not part of the Serra exhibition were opened for visitors to ensure the daily operations of the Museum were not severely affected. There was an expectation that there would be some noise with the installation of the large-scale works on the second and sixth floors and that visitors would hear it. However, the noise was limited and not different from other installations at MoMA.

In providing the exhibition area for this installation, the Museum had to take into consideration injury, damage, and insurance issues. During this exhibition there was no injury to any staff, hired help or visitors. Corey Wyckoff explained that in order to safeguard against damage the riggers and MoMA's building engineers ensured that any modification done to the building was secure and safe and that no structural elements to the building were changed. Insurance coverage of the artwork was covered by the Museum and all hired professionals were covered for liability.

Once the platform in the empty lot was constructed during a month-long process, the installation of the three steel freestanding works made up of a total of twenty-six plates could begin on the second floor gallery. These included *Sequence* (2006), described by Serra as two different spirals connected where the choice of entering will either lead you to the containment of an interior space or through a seemingly endless path between two leaning walls;¹³⁶ *Torqued Torus Inversion* (2006), made up of two rounded forms that curve in two directions placed next to each other with one leaning toward you on the inside and away on the outside and the other leaning away from you in the inside and toward you on the outside.¹³⁷ The artist said that both *Sequence* and *Torqued Torus Inversion* lean to the side and have no vertical to relate your step to,

¹³⁶ McShine, "A Conversation about Work with Richard Serra," 39-40.

¹³⁷ McShine, "A Conversation about Work with Richard Serra," 38.

which can be disorienting.¹³⁸ The third work *Band* (2006), a work whose plates snake horizontally for more than seventy feet create four different cavities. Serra states that there is no beginning or end to this band. He explained that this work “promotes movement through form.”¹³⁹

These three works were newly fabricated in a foundry in Germany in 2006 and were shipped to the United States in late July 2006. The plates were transported by truck, barge, and transatlantic vessel to a temporary storage site in Long Island before they were brought to MoMA. The individual plates were transported to MoMA on five or six flatbed trucks at a time, with the plates chained in place. The riggers acquired the necessary permits for oversized loads. The trucks would wait on cross streets or adjacent avenues until the riggers were ready for the plates. The trucks would then pull up to the entrance of the lot on 54th Street where the riggers would attach two lift-lugs to the top of each plate in order to lift them and connect them to the lifting mechanism of a crane. Once the majority of the plates were brought into the lot where the crane was stationed, the riggers and Serra began taping the layout of each sculpture on the floor of the gallery. After the layout was completed, the floor was covered with masonite for protection against marks while adding additional support for the machinery used in the installation of the works. Two large hydraulic gantries were brought into the gallery, which allowed each plate to be lifted more easily and placed on the final spot on the floor where the plates were attached. Tracks for the gantries were laid on top of the masonite so that they could move around.

¹³⁸ Carter Ratcliff, “The Fictive Spaces of Richard Serra,” *Art in America* (December 2007), 121.

¹³⁹ McShine, “A Conversation about Work with Richard Serra,” 40.

Once the floor was prepared for the plates, the crane lifted the individual plates on the platform outside of the gallery in the order that they needed to be installed.¹⁴⁰ *Sequence* was installed first, as it was exhibited furthest from the access door, then *Torqued Torus Inversion*, and finally *Band* installed closest to the door. Once the plates were placed on the platform, they were placed on “skates” or steel rollers and a forklift moved them into the gallery. Richard Serra stated that the process of installing the plates required everyone to pay attention, because if the plates were not lifted from the right pick points then they would not be set on the floor correctly.¹⁴¹ What complicated the installation process for *Sequence* and *Torqued Torus Inversion* was the fact that the wheels on the skates only moved in one direction but the plates for these works had to be moved in several directions to end up in their correct positions on the floor. In order to change the direction of the skates, the plate had to be lifted up slightly with a jack machine in order to reposition it in the new direction. For *Band*, the skates were positioned on each plate in the exact orientation that they were going to be placed in and then moved inside the building.

After moving all of the plates to where they were to be displayed, they were then attached to the two hydraulic gantries connected to an I-beam to be lifted to their correct position. When the plates for each sculpture were placed next to each other they were chained to the I-beam of the gantries, allowing for fine-tuning and subtle movements of each plate. Once the plates were ready to be lowered to their final positions, the masonite

¹⁴⁰ Corey Wyckoff, email message to author, September 9, 2008.

¹⁴¹ Museum of Modern Art, “Online Exhibition: Richard Serra Sculpture: Forty Years,” *Video of Installation on Second Floor* <<http://moma.org/exhibitions/2007/serra/flash.html>> (accessed November 24, 2008).

was lifted up and the plate was lowered down. The last step for the installation of these works was welding them together using a torch.

In our interview, Wyckoff also described the procedures that MoMA undertook to install the three large steel works on the sixth floor.¹⁴² To minimize any interruption of daily operations the rigging of all the large plates up the freight elevator took place on a Saturday, when it was convenient to shut the elevator down.¹⁴³ These works included *Delineator* (1974-75), a work consisting of two steel plates each measuring twenty-six feet long and ten feet wide with one placed on the floor and the other placed on the ceiling at a right angle to it. The work deals with the interior space of the room, the ceiling and floor. Serra explained that *Delineator* came about after he slipped a disc and was lying on the floor and thought about the relationship of the ceiling boards to where he was on the floor, at right angles to each other.¹⁴⁴ He said “Think of it as a cross that has been separated.” *Equal Parallel: Guernica Bengasi* (1986) is four slabs, two short long rectangle blocks and two square blocks which, as Serra explains, allows you to examine things that thwart your expectation: “You read the face of each block in relation to the face of the next block...it appears to rise and fall in relation to how you walk the length of the room.”¹⁴⁵ The elevations of the work shift both horizontally and vertically in relation to the viewer’s movements where the center of the work is shifted to the viewer who becomes a moving center.¹⁴⁶ The last work installed on the sixth floor was

¹⁴² Corey Wyckoff, email message to author, September 9, 2008.

¹⁴³ Corey Wyckoff, email message to author, February 10, 2009.

¹⁴⁴ McShine, “A Conversation about Work with Richard Serra,” 32-33.

¹⁴⁵ Museum of Modern Art, “Online Exhibition, Richard Serra Sculpture: Forty Years” *Audio for the Work: Equal Parallel: Guernica Bengasi* (1986), <<http://moma.org/exhibitions/2007/serra/flash.html>> (accessed November 24, 2008)

¹⁴⁶The Plates with notes by Richard Serra, “Equal-Parallel: Guernica-Bengasi” in *Richard Serra Sculpture 1985-1998* ed. Russell Ferguson, Anthony McCall, and Clara Weyergraf-Serra (Los Angeles : Gottingen, Germany : Museum of Contemporary Art ; Steidl, 1998), 45.

Circuit II (1972-86), composed of four steel plates each measuring twenty feet long and ten feet wide that are positioned in the four corners of its own room. By placing the plates in the corners of the room, the juncture of the wall holds up the plates and they cannot move. Rosalind Krauss explains that the only place to experience this sculpture is at its center, with the viewer turning 360 degrees to see the entire work, thus involving the viewer's body in the action of the work.¹⁴⁷

These three works needed to be installed prior to the rubber pieces and prop pieces that were also exhibited on the sixth floor. Because these works were too heavy to be brought up on the freight elevator, the riggers took down a wall on the ninth floor in order to create a pulley system that would lift the plates up the freight elevator shaft.¹⁴⁸ As with the building of the platform to the entrance on the second floor, this demolition was fit into the exhibition budget. The riggers as well as engineers surveyed the ninth floor walls to assure that no permanent structural damage to the building was done with this demolition.¹⁴⁹ According to Wyckoff, the disturbance and intrusion to Museum personnel was minimal regarding the destruction of this wall, but had to be done, as there was no alternative to get the plates into the sixth floor gallery.¹⁵⁰

A part of *Delineator* consisted of a plate installed on the ceiling of the gallery. First MoMA staff worked with engineers to ascertain where the support beams were located. Then the riggers removed ceiling panels and placed hooks to the structural beams that connected to hooks placed on the top of the plate. Wyckoff explained that no Museum personnel around this space were affected by the removal of the ceiling panel.

¹⁴⁷ Krauss, "Richard Serra Sculpture," 27.

¹⁴⁸ Corey Wyckoff, email message to author, September 9, 2008.

¹⁴⁹ Corey Wyckoff, email message to author, September 15, 2008.

¹⁵⁰ Corey Wyckoff, email message to author, February 10, 2009.

The cost of this removal was also included in the original budget as the placement of this plate on the ceiling was part of the work. Riggers stood on top of the plate and lifted the plate upward toward the ceiling by pulling on a chain that connected the two sets of hooks. Once they reached the ceiling the plate was secured in place and the riggers exited the ceiling through an access panel that led right back down into the gallery. After this plate was installed the plate on the floor was installed.

After *Delineator* was put in place, the work *Equal Parallel: Guernica Bengasi* was installed. A temporary wall was constructed to separate *Delineator* from *Equal Parallel: Guernica Bengasi* to give them their own space. Wyckoff explained that this was integral to the design aesthetic of the individual sculptures and that temporary walls are built in most exhibitions to achieve the desired design and flow.¹⁵¹ The work *Equal Parallel: Guernica Bengasi* is comprised of four slabs of steel. The two smaller ones were brought through the freight elevator. The other two longer plates, each weighting about 30,000 pounds, were hoisted up the elevator shaft by a pulley system similar to what was done with *Delineator*. Because of their weight, these two plates were installed over structural beams to create more stability on the floor. In order to stand the plates up two hydraulic gantries connected to an I-beam were employed, just like the ones used for the works on the second floor. The two plates were strapped and connected to the I-beam and then the gantry raised the plates to a standing position.

The installation of *Circuit II* required a full room because of the placement of the four plates in four corners.¹⁵² Two temporary walls were set up to create this room with one wall separating *Circuit II* from *Equal Parallel: Guernica Bengasi* and another that

¹⁵¹ Corey Wyckoff, email message to author, February 10, 2009.

¹⁵² Corey Wyckoff, email message to author, September 9, 2008.

separated *Circuit II* from the works made of rubber and prop pieces. These temporary walls were again built to provide the correct design of the work. The four plates were also brought up through the elevator shaft and like *Equeal Parallel: Guernica Bengasi*, were brought up lying flat and needed to stand upright. For this job the Museum used manual gantries with wheels. A forklift was used to lift each of the four plates off the ground and then they were attached to the gantry. Once the plates were attached to the gantry, chains were used to straighten the plates to a vertical position. The gantry then wheeled each plate to a corner of the room where they were wedged into each corner. Because nothing else supported the plates it was important to make sure the plates were wedged in correctly so that enough tension was created to keep the plates in place. Once the plates were in place, the temporary walls were shortened to better enclose the work within the room.

“Cai Guo-Qiang: I Want to Believe” Installation Process

The retrospective of Cai Guo-Qiang’s work at the Guggenheim Museum was an enormous endeavor and gave the Museum the opportunity to expand the use of their space in new ways. To accomplish the installation, many people were involved, including the Guggenheim’s full-time staff, temporary installation crews as well as Cai Guo-Qiang and members of his studio, engineers, and rope access technicians. The installation for this exhibition took a total of five and one half weeks, a much longer process than a typical exhibition changeover.¹⁵³ The Guggenheim had to figure out how best to go about the installation process while still remaining open for visitors so that revenue could be maintained. Providing the exhibition area for the installation had other

¹⁵³ Jessica Ludwig, telephone interview, September 12, 2008.

implications for the Museum to consider as well. The architecture of the Guggenheim, while beautiful in its own right, has limitations during the installation of new works.¹⁵⁴ The Cai exhibition was no different, and visitors were able to watch, as the crew worked. Some visitors were not fazed by the noise but others found it to be a disturbance to their visit. The Guggenheim also had to think about damage to the building when hanging such large-scale objects in this exhibition. The engineers were careful in this concern as well as assuring that both the staff and the public were safe.

The issue of insurance for this exhibition was handled differently from other exhibitions though. Jessica Ludwig explained that traditional museum standards dictate that artwork should be out of public reach. As the installation design of many Cai works broke from that standard, special agreements were made with lenders of the works regarding insurance of their objects.¹⁵⁵

In the author's interview with Ludwig, the installation of the works *Inopportune Stage One* (2004), *Borrowing Your Enemies Arrows* (1998), *New York's Rent Collection Courtyard* (2008), and *Reflection- A Gift from Iwaki* (2004) was explained.

With *Inopportune Stage One*, the engineers evaluated the configuration of the nine cars supported from the ceiling in the main atrium of the rotunda without posing any threats to the building. The cars were brought in through the bridge and onto the floor of the rotunda by attaching them to skates and wheeling them into the building.¹⁵⁶ Each engine was removed to make the car lighter and easier to lift up as well as safer for the building. In order to rig up the cars they were rotated to their final hanging position by a gantry and then secured with cables that were attached to specific locations on the

¹⁵⁴ Jessica Ludwig, email message to author, January 2, 2009.

¹⁵⁵ *ibid*

¹⁵⁶ Jessica Ludwig, telephone interview, September 12, 2008.

ceiling. For each car brought up, there were four rope access technicians who were suspended in four corners of the rotunda ceiling to hoist up the cars. Each technician pulled a lever to bring the car up to the desired position. Fabrication staff on the floor watched and used a radio to talk with the technicians and make sure the cars would be placed in the right location.¹⁵⁷ Once all of the cars were in their positions and secured in place, a crane lifted up members from the installation crew to install the LED light rods in holes made in each car. The installation process of this piece took a total of twenty-nine days to complete.

Borrowing Your Enemies Arrows, because it was on loan from the Museum of Modern Art, restricted the Guggenheim in its installation procedures. Delivered without disassembly, the work was brought in through the bridge and installed in the High Gallery, a space off of the first ramp of the rotunda. To install such a large work in the space of the High Gallery, the boat was attached to cables and hoisted up in the air by the rope access technicians. The engineers built scaffolding underneath the boat to the level of the High Gallery and then the boat was hoisted inside. Once inside the space the boat was connected to the ceiling and the arrows were inserted in place.

New York's Rent Collection Courtyard (2008) was a newly created version of Cai Guo-Qiang's work entitled *Venice's Rent Collection Courtyard* (1999) created for the Venice Biennale that was, in turn, "a partial reconstruction of *Rent Collection Courtyard* (1965), an eponymous 1960's monument from China's Cultural Revolution, originally commissioned by the government and composed of 114 clay sculptures

¹⁵⁷ Solomon R. Guggenheim Museum, "Cai Guo-Qiang I Want to Believe: Installation Process for Inopportune Stage One (2004)," <http://www.guggenheim.org/exhibitions/exhibition_pages/inopportune.html> (accessed November 24, 2008).

dramatizing the exploitation of peasants by their landlords.”¹⁵⁸ The New York version of the piece, like the Venice piece, dealt with the continuing tradition of reproduction and reinstallation that characterized the original *Rent Collection Courtyard*, as the original work was copied in different sites around China.¹⁵⁹ However, Cai’s piece shifts the question of labor from the exploitation of peasants by the elite to the relations between artist and worker in a global art world. For the work in Venice and the recreation of the work in *New York’s Rent Collection* the process of making the sculptures was part of the exhibition and took on a performance nature.¹⁶⁰ The installation was not completed when the exhibition opened. From the start of the exhibition on February 22, 2008 until March 2, 2008, Cai had Chinese sculptors continuously work and refine the figures. Visitors were able to walk up the ramp and observe the process. Images of the original figures made in 1965 were taped to the ramp walls as references for the workers. Each figure in its own state of completeness was left unfired so that when they dried they would disintegrate over the course of the exhibition. Cai explained that his idea for the work at the Venice Biennale came about when he thought of “turning ‘looking at sculpture’ into ‘looking at making sculpture’, using that very process as a work of art.”¹⁶¹ He also explained that he wanted to use the original work of *Rent Collection Courtyard* and turn it into a time-based installation.¹⁶² His idea was to make an ephemeral work to illuminate the creative process and the effects of time.¹⁶³ The New York version depicts that same

¹⁵⁸ David Joselit, “Image Explosion: Global Readymades”, in *Cai Guo-Qiang I Want to Believe*, ed. Thomas Krens and Alexandra Munroe, (New York: Guggenheim Museum Publications, 2008), 51.

¹⁵⁹ Joselit, “Image Explosion: Global Readymades,” 51-52.

¹⁶⁰ Joselit, “Images Explosion: Global Readymades,” 53.

¹⁶¹ Octavio Zaya, “Octavio Zaya in conversation with Cai Guo-Qiang”, in *Cai Guo-Qiang* (London; New York: Phaidon Press, 2002), 8.

¹⁶² Zaya, “Octavio Zaya in conversation with Cai Guo-Qiang,” 9.

¹⁶³ Michelle Yun, “Venice’s *Rent Collection Courtyard* 1999” in *Cai Guo-Qiang I Want to Believe*, ed. Thomas Krens and Alexandra Munroe (New York: Guggenheim Museum Publications, 2008), 208.

ephemeral quality with the figures disintegrating over the course of the exhibition until they are no longer there.

The piece at the Guggenheim featured a series of approximately seventy clay sculptures that were created both in the Geiger Mountmaking and Design studio in the Bronx and on site by Chinese artisans invited to New York. The group of sculptures was installed on the third level of the rotunda ramp. To set the work up in this space a lot of preparations had to be done. First steel and wooden armatures or frameworks to support the sculptures were built and set in the right poses for each character and then placed in specific locations on the ramp. Once the armatures were set up, the artists began molding the clay around the frames. The sculptures mimicked the original sculptures of peasants and landlords made in *Rent Collection Courtyard* in the same socialist-realist tableau by following what was done in photographs of the original work. The addition of eyes and the placement of props such as wagons and hay were added around the figures.

The work *Reflection- A Gift from Iwaki* (2004) consists of a wooden fishing boat that was excavated from the beach of Iwaki, Japan and is filled with white porcelain statues of a popular Buddhist deity. Here, the boat is a wrecked fishing boat and many of the porcelain statues are broken. The work was installed on the top level of the Annex building. The boat was brought into the building through the bridge and window in pieces that made it easier to handle. The pieces were then brought up through the freight elevator, put together in the room, and the porcelain pieces were added. Alexandra Monroe, spoke about how this work “entails tremendous logistics, working with local officials on many levels, gathering and working and soliciting the cooperation and support and love of hundreds of local Japanese, to create a work that is not just the fixed

complete installation that we see here but is also a social process...”¹⁶⁴ Cai Guo-Qiang wanted this work exhibited at the Guggenheim to commemorate the people of Iwaki and the decade of friendly collaborations.¹⁶⁵

“Take your time: Olafur Eliasson” Installation Process

The installation for the exhibit “Take your time: Olafur Eliasson” at P.S.1 Contemporary Art Center was a unique experience, taking place April 20 until June 30, 2008. The exhibition traveled from the San Francisco Museum of Modern Art to the Museum of Modern Art and to P.S.1 Contemporary Art Center. It was the first time that a joint exhibition between the affiliates P.S.1 and the Museum of Modern Art took place. In order for the installation to go smoothly, P.S.1 needed to work with its space to figure how best to mount works that were made of materials such as water and light, and that used computer equipment. This joint endeavor incorporated the help of many people to install Eliasson’s installations at P.S.1, including the registrar and art handler from the San Francisco Museum of Modern Art, registrars from P.S.1, the installers that P.S.1 hires, and staff from MoMA-- the organizing curators, two registrars, and members of the conservation department. Eliasson also brought twelve people from his studio to help with the installation as well as two companies he hired to install specific elements to certain works.

Summer Kemick, Registrar at P.S.1, explained that this installation process was more unusual than previous installations because of the many people involved and

¹⁶⁴Solomon R. Guggenheim Museum, “Cai Guo-Qiang: I Want to Believe” Exhibition-Audio Tour of *Reflection-A Gift from Iwaki* (2004), <http://guggenheim.org/exhibitions/exhibition_pages/audio/Track30.mp3> (accessed November 24, 2008)

¹⁶⁵ *ibid*

because the team from Eliasson's studio installed many of the works on their own without involving the staff of P.S.1, and leaving the staff of the Museum with limited control.¹⁶⁶ This separation caused the Museum staff to feel detached and removed from the installation process.¹⁶⁷ However, P.S.1 staff adapted to this arrangement and was able to assist with the installation, readying the display area, creating mounts, and setting the stage for Eliasson's staff to complete the installation.¹⁶⁸ Kemick also explained that as P.S.1 is a contemporary art institution, collaborating with living artists is a part of the Museum's foundation. Kemick stated that these artists tend to push the boundaries with their art and through its mission P.S.1 gives the artists freedom to install and exhibit the works in a way that fits their vision, within the space of the Museum, as long as it is safe for the public and does not leave any lasting damage to the Museum's building.

The installation of the works in this exhibition created other implications for the Museum. As is with other exhibitions there is always an issue of noise during installations. Because the exhibition was installed completely on the third floor and basement, visitors were not affected by noise when on the first and second floors of the Museum. P.S.1 also had to take into consideration injury, damage, and insurance issues. Kemick explained that there was no injury to any staff member, hired staff or visitors during the installation. The damage done to the building for certain installations, such as works attached to ceilings or installed through windows, was both necessary but minimal and at the end of the exhibition was repaired. The Museum of Modern Art was in charge of both the budget and insurance for this exhibition and allocated a separate budget for P.S.1. MoMA covered insurance for the works installed specifically at P.S.1 under an

¹⁶⁶ Summer Kemick, interview by author, Thursday November 20, 2008.

¹⁶⁷ *ibid*

¹⁶⁸ *ibid*

umbrella policy. For this reason both registrars and conservators from MoMA were involved in the installation and maintenance.

According to Kemick, the installation began for the work *Take Your Time* (2008) once the frames were brought in through the window of the third floor. To attach the piece to the ceiling the installers drilled a hole in the ceiling to attach a poll that connected to the motor. The installers then attached a chain to a ceiling beam and to the motor and pulled it up so that the motor was secured. Then the Eliasson studio team took over and attached the circular frame to the motor. Once the frame was in place personnel hired by Eliasson installed the mylar to mimic a mirror to give it its finished look. As a result of the weight of the work, the ceiling began to warp. Kemick explained that the work was hung despite the weight issues because of the freedom P.S.1 was willing to give to the artist in fulfilling his vision of the work.¹⁶⁹ Kemick explained further that the damage was only minimal. As with the holes drilled to attach the piece to the ceiling, once the exhibition ended the holes were repaired.

The natural light setup (2008) was installed by Eliasson's studio in a corner gallery on the third floor. The work was made of computers that synchronized the patterns of light in the gallery space.¹⁷⁰ The installers set up the drop ceiling in the gallery and then the studio team placed all of the light fixtures on it. The equipment used to coordinate the lights was placed on top of the drop ceiling so that it was hidden from view. After the studio team placed all of the lights in place on the drop ceiling a vinyl covering was placed over the lights by a team of people that manufactures the vinyl. The vinyl covering gave the piece the white hue that was required for the effect of the piece.

¹⁶⁹ *ibid*

¹⁷⁰ *ibid*

Eliasson's studio created the programmed rhythm with the computer equipment that synchronized the work to emit different hues of white light.

The lamp in *Inverted Berlin Sphere* (2005) was installed in a corner gallery surrounding the gallery where *Take Your Time* was installed. To install *Inverted Berlin Sphere* the P.S.1 crew needed to drill a hole in the ceiling and raise the wire in place, similar to a regular light fixture.¹⁷¹ The fixture was then anchored and secured in place.¹⁷² The hole created to install this work was also patched up at the conclusion of the exhibition.

Sunset kaleidoscope (2005) and *Colour spectrum kaleidoscope* (2003) were installed in two windows on the third floor of the Museum. *Sunset kaleidoscope* is a box that creates and distorts the outside view with mirrored images and a rotating yellow disk. *Colour Spectrum Kaleidoscope*, a hexagonal shaped kaleidoscope made of color-effect glass connected together gives the viewer a multicolored prismatic view of the world. Henry Urbach described the history of kaleidoscopes and their popularity in America: "they stimulated the eyes of those who looked inside, they participated in the expansion of quasi-aesthetic experience, transferring the mimetic imperative and transformative aspirations once reserved for painting and sculpture into a more popular, participatory mode."¹⁷³ These kaleidoscopes shift the viewer's own perception of what they are looking at, as they look out a window to the outside world through different colored glass. For both works, P.S.1 had to make holes in the walls so that the works could fit securely in the windows and bring in enough light so that the effects of the works could

¹⁷¹ *ibid*

¹⁷² *ibid*

¹⁷³ Henry Urbach "Surface Tensions: Olafur Eliasson and the Edge of Modern Architecture" in *Take Your Time: Olafur Eliasson Catalogue*, ed. Madeleine Grynsztejn, (San Francisco Museum of Modern Art: Thames & Hudson, 2007), 147-48.

be seen. To secure these two works, the window panes had to be removed and replaced with plexiglass surrounding the kaleidoscopes, which allowed the art to protrude to the outside of the building. For *Sunset kaleidoscope*, a wooden frame was placed around it to keep the work in place.

It is clear that many staff members, the artists, and freelance contractors are required in order to mount Installation art in museum spaces. These museums needed to be flexible as well as creative with their spaces and in the methods used to install these works. As with any exhibition, there are also implications that arise for each installation, such as budget, insurance, injury, damage, noise, and working with outside contractors. Each museum had its own way of addressing those issues while remaining true to their mission and the artist's vision. The procedures highlighted in each exhibition were those that required more planning and foresight than in other exhibitions and demonstrate further the lengths that these museums will go to exhibit Installation art.

Chapter Five: Issues of Material: Maintaining and Protecting the Artwork

As is the case with all exhibitions, once the artworks are installed in the galleries the museum must then handle the maintenance and protection of the works. This was no different for the Installation art made by Richard Serra, Cai Guo-Qiang and Olafur Eliasson in the exhibitions discussed. Once the installations were installed in each of these museums, procedures had to be created in order to maintain and protect each work. Because these exhibitions included large-scale works as well as those made of unique materials, the preservation practices and protection were different for each piece. For some pieces the methods used were typical maintenance procedures similar to other exhibitions, and for other works, special maintenance procedures were created that took a little more ingenuity to decide what worked best with the work. This Chapter will focus on the maintenance and protection procedures that each of the three museums employed for various works of Installation art in their respective exhibitions of Richard Serra, Cai Guo-Qiang and Olafur Eliasson.

Maintaining and Protecting Richard Serra's Large-Scale Installations

The large-scale works in "Richard Serra Sculpture: Forty Years" were installed on the second and sixth floor of the museum as well as in the sculpture garden. All of these works were made of heavy steel and were freestanding. As they were grounded to the floor they could not be easily moved. The issue of maintaining and protecting these works did not require a lot of new methods. Corey Wyckoff explained that throughout the

exhibition the registrars worked closely with the security staff to ensure that there was proper security coverage in each of the galleries where Serra's works were installed.¹⁷⁴

The works on the second floor, *Sequence* (2006), *Torqued Torus Inversion* (2006) and *Band* (2006) were particularly managed by security staff, because these works were newly created and had never been installed in a museum setting before. The greatest concern for MoMA was to ensure that visitors did not touch the sculptures.¹⁷⁵ Because the patina or orange rust on each sculpture is incredibly delicate, continuous touching would dull the color, eventually turning it to gray. "Do Not Touch the Sculpture" signs were placed on the walls of the gallery spaces as well as outside the galleries to deter visitors. The Museum also had mobile guards walking around the second floor gallery to make sure the protection of the works was enforced.

To protect the sculptures in the sculpture garden, security guards were also placed in that area; making sure people were not touching the sculptures, in order to protect the rust. To maintain the works they were regularly monitored for cleanliness and sprayed with water if necessary. Detritus was removed as well.

Maintaining Cai Guo-Qiang's Installations

The water and live animals in *An Arbitrary History: River* (2001) and unfired clay in *New York's Rent Collection Courtyard* were two works in the Cai exhibition that were made of materials not usually seen in a museum setting. The Guggenheim needed to employ maintenance and protection procedures for these works, to ensure the safety of

¹⁷⁴ Corey Wyckoff, email message to author, November 24, 2008.

¹⁷⁵ *ibid*

the pieces as well as other works in the Museum and the safety of visitors. Jessica Ludwig explained some of the maintenance procedures in an interview.¹⁷⁶

An Arbitrary History: River was installed on the second floor of the Annex building next to the Thannhauser Gallery. This work consisted of a “river” made of fiberglass and bamboo filled with water. The “river” was tested to ensure that no water would leak out. However in case the “river” did fail, bumpers were placed on all doors of the gallery to keep the water inside and not enter the Thannhauser Gallery and ruin the works in that space.¹⁷⁷ In addition, a water pump was also put into this gallery space inside a cabinet to soak up water as well, in case of flooding.¹⁷⁸

Another element in *An Arbitrary History: River* was the use of caged birds and snakes placed in a bag, each hung from the ceiling of the room. In order to protect these animals, the Guggenheim hired experts to provide care instructions to the Museum staff. A snake expert advised the Museum on the selection of snakes that would work best as part of this piece. The snakes were also changed each week throughout the run of the exhibition in order not to stress the snakes. The birds that were used were rented from a company that also gave specific instructions on how best to care for them.

New York’s Rent Collection Courtyard consisted of seventy unfired clay sculptures placed on the third ramp of the rotunda. The concern was protecting other objects in the Museum from dust and dirt that was generated by these sculptures.¹⁷⁹ The Guggenheim addressed this issue by placing mats at the beginning and end of the ramp as well as regularly mopping around the sculptures. The Guggenheim also ensured that there

¹⁷⁶ Jessica Ludwig, email message to author, August 3, 2008.

¹⁷⁷ *ibid*

¹⁷⁸ *ibid*

¹⁷⁹ *ibid*

was a safe passageway between each sculpture to protect the sculptures from damage through accidents and visitors from injury.

The Guggenheim staff also employed regular visits to each gallery space and standard maintenance procedures, such as security guards placed in each gallery, to ensure that each of the pieces were secure and safe for visitors and that no damage to the piece had occurred. However, it is the procedures used to protect and maintain the unusual objects in this exhibition that demonstrate the creative measures the Guggenheim employed to properly and safely exhibit this exhibition.

Maintaining Olafur Eliasson's Installations

The various works installed at P.S.1 Contemporary Art Center involved many people. The extreme involvement of the Eliasson studio made this exhibition unique. This involvement in turn affected the maintenance and preservation of some works once installed in the space. Summer Kemick discussed some maintenance issues that P.S.1 faced with the exhibition of "Take Your Time: Olafur Eliasson."

For the work *The natural light setup*, each of the lights was installed in the drop ceiling by the Eliasson studio team. During the course of the exhibition, many lights blew out but P.S.1 did not have the authority to replace them. At the beginning, P.S.1 had the studio staff come back to change the lights, but as the exhibition continued and more lights needed to be replaced, P.S.1 decided to leave the work as it was and not bring back the Eliasson staff from Berlin.¹⁸⁰ For the work *Take Your Time*, the mirrored mylar covering started to wrinkle. To ensure the illusion of the piece did not disappear, P.S.1 had the company that produced the mylar, return to fix it. As a co-exhibitor, The

¹⁸⁰ Summer Kemick, interview by author, November 20, 2008.

Museum of Modern Art provided P.S.1 a bigger budget than usual, including an umbrella insurance policy. However, as these two pieces required the work of the Eliasson studio and other personnel from Germany, P.S.1 had to decide when it would be cost effective to call them back in order to fix the works and when it would be enough to leave the works as they were. For *The natural light setup*, P.S.1 decided that it was not cost effective to continue to bring the Eliasson staff back each time a light bulb needed to be replaced and it did not change the effect of the work in a significant way.¹⁸¹ However, for *Take Your Time*, the illusion of the work would have been altered had the mylar covering not been fixed.¹⁸²

There were other works in the exhibition that P.S.1 was able to maintain properly with their own staff. *Colour Spectrum Kaleidoscope*, a work privately owned had stricter regulations for its protection. It was important to the lender that the work remained clean throughout the exhibition. The installers at P.S.1 placed a domed shaped piece of plexiglass around the outside of the work to protect the work from any dirt and ensure light could still come through.¹⁸³ With *Reversed Waterfall*, a lot of water spilled on the floor of the Duplex gallery where it was installed. To protect visitors from the hazard of slipping, the maintenance crew mopped the floors every forty minutes to an hour everyday.¹⁸⁴

Model room (2003), consisted of a collection of prototypes from Eliasson's studio that were placed on shelves. The objects in this work were prototypes and showed methods used in earlier collections and presentations, thereby merging the studio and the

¹⁸¹ ibid

¹⁸² ibid

¹⁸³ ibid

¹⁸⁴ ibid

gallery space.¹⁸⁵ This work gave visitors a glimpse into Eliasson's creative process through constant exploration and experimentation.¹⁸⁶ Visitors were able to glimpse into Eliasson's creative process. To protect over two hundred pieces that made up this work, installed in two galleries on the third floor, it was necessary to place leashes on each individual piece and secure them to the shelves by small wires. Kemick, also took an inventory of each work with photographs of where each object would be installed. Color dots were placed underneath each work to keep track of a work if it disappeared.

P.S.1 also employed its staff with the help of the Museum of Modern Art's conservation staff to walk through the gallery spaces to check on each work.¹⁸⁷ Richard Wilson, Chief of Installation at P.S.1, was in charge of cleaning many of the installations including *Model Room* and the two kaleidoscope works. Glen Wharton, the Media Conservator from MoMA, made monthly visits to the museum to maintain appropriate humidity and light readings of each work.

"Take Your Time: Olafur Eliasson" was a unique exhibition from start to finish. Although P.S.1 prides itself on creating installation exhibitions in its space, this exhibition was a whole new experience for the Museum, demonstrating the lengths P.S.1 will go to, for an artist.

¹⁸⁵ Grynstejn, "(Y)Our Entanglements," 25.

¹⁸⁶ Grynstejn, "(Y)Our Entanglements," 26.

¹⁸⁷ *ibid*

Conclusion

Installation art requires a lot of space. The discussions of three exhibitions: “Richard Serra Sculpture: Forty Years”, “Cai Guo-Qiang: I Want to Believe” and “Take your time: Olafur Eliasson” demonstrate how the Museum of Modern Art, the Solomon R. Guggenheim Museum, and P.S.1 Contemporary Art Center were able to creatively work with their spaces to install the installations included in these exhibitions. These exhibitions of Installation art have allowed these three museums to remain relevant in today’s world of contemporary art by showing works of three innovative artists who have been pushing the boundaries of contemporary art. However, through these exhibitions, these museums have been able to stay true to their mission, while pushing their institutions toward the future of contemporary art.

In discussing each of these exhibitions and the specific issues involving space, the installation process, and maintenance procedures employed for a number of works, a better understanding is provided of the ingenuity and flexibility that a museum must have in order to exhibit Installation art in its space.

Artworks Cited

Allan Kaprow

Words, 1962

Rearrangeable Environment with lights and sounds.

Smolin Gallery, New York, 1962.

Claes Oldenburg

The Store, 1961

New York

December 1, 1961-January 31, 1962

Robert Morris

Untitled (L-Beams) (1965)

Stainless steel in 3 parts

Dimensions Variable

Whitney Museum of American Art

Carl Andre

144 Lead Square (1969)

Lead 144 units

Overall 3/8" x 12' x 12' (1 x 367.8 x 367.8 cm)

Museum of Modern Art

Advisory Committee Fund

Vito Acconci

Seadbed, January 1972

Wooden ramp: 76.2 x 670.56 x 914.4 cm

Sonnabend Gallery, New York

Performance/Installation 9 days, 8 hours a day

During a 3-week exhibition

Walter De Maria

New York Earth Room (1977)

250 cubic yards of earth (197 cubic meters)

3,600 square feet of floor space (335 square meters)

22 inch depth of material (56 centimeters)

Total weight of sculpture: 280,000 lbs. (127,300 kilos)

Dia Art Foundation

141 Wooster Street, New York

Ann Hamilton
tropos (1993)
Multi-media installation
15' x 94' x 90 inches
Dia Center for the Arts, New York
October 7, 1993- June 19, 1994

Bruce Nauman
Anthro/Socio (1991)
Video Installation
3 projection surfaces and 6 monitors
Installation in the exhibition *Dislocations*,
The Museum of Modern Art, New York
October 16, 1991-January 2, 1992

Richard Serra
Splashing (1968)
Lead
18'' x 26' (45.7 cm x 7.9 m)
Installation in the exhibition *Nine at Castelli*,
Leo Castelli Warehouse, New York, 1968

Richard Serra
One Ton Prop (House of Cards) (1969)
Lead
Four plates, each: 48 x 48 x 1'' (121.9 x 121.9 x 2.5 cm)
The Museum of Modern Art, New York.
Gift of the Grinstein Family

Richard Serra
Pulitzer Piece: Stepped Elevation (1970-71)
Weatherproof steel
Three plates:
60'' x 40' 3'' x 2'' (152.4 cm x 12.3 m x 5.1 cm),
60'' x 45' 11'' x 2'' (152.4 cm x 14 m x 5.1 cm),
60'' x 50' 7'' x 2'' (152.4 cm x 15.4 m x 5.1 cm)
Collection Emily and Joseph Pulitzer, Jr., St. Louis

Richard Serra
Clara-Clara (1983)
Weatherproof steel
Two identical conical sections inverted relative to each
Other, one: 12' (3.7 m) high x 109' (33.2 m) along the
Chord x 2'' (5.1 cm) thick, one: 12' (3.7 m) high x 107' 10''
(32.8 m) along the chord x 2'' (5.1 cm) thick
Collection City of Paris

Richard Serra
Torqued Ellipse I (1996)
Weatherproof steel
Overall: 13' 1'' x 29' 11'' x 20' 7'' (4 x 9.1 x 6.3 m)
Plates: 2'' (5.1 cm) thick
Dia Art Foundation, New York
Gift of Louise and Leonard Riggio

Richard Serra
Band, 2006
Weatherproof steel
Overall: 12' 9'' x 36' 5'' x 71' 9 ½'' (3.9 x 11.1 x 21.9 m),
plates: 2'' (5.1 cm) thick.
Collection of the artist

Richard Serra
Sequence, 2006
Weatherproof steel
Overall 12' 9'' x 40' 8'' x 65' 2'' (3.9 x 12.4 x 19.9 m),
plates: 2'' (5.1 cm) thick.
Collection of the artist

Richard Serra
Torqued Torus Inversion, 2006
Weatherproof steel
Two torqued toruses, each overall: 12' 9'' x 36' 1'' x 26' 6 ½''
(3.9 x 11 x 8.1 m), plates: 2'' (5.1 cm) thick.
Collection of the artist

Richard Serra
Circuit II 1972-86
Hot-rolled steel
Four plates, each: 10' x 20' x 1'' (3.1 m x 6.1 m x 2.5 cm).
The Museum of Modern Art, New York
Enid A. Haupt and S.I. Newhouse, Jr. Funds

Richard Serra
Delineator, 1974-75
Hot-rolled steel
Two plates, each: 1'' x 10' x 26' (2.5 cm x 3.1 m x 7.9 m).
Collection of the artist

Richard Serra

Equal Parallel: Guernica Bengasi, 1986

Weatherproof steel

Four slabs, two: 58 ½ x 58 ½ x 9 ½'' (148.6 x 148.6 x 24.1 cm),

two: 58 ½'' x 16' 4 1/8'' x 9 ½'' (148.6 cm x 5 m x 24.1 cm).

Museo Nacional Centro de Arte Reina Sofia, Madrid

Cai Guo-Qiang

Meteorite Craters Made by Humans On Their 45.4 Hundred Million Year Old Planet:

Project for Extraterrestrials No. 3 (1990)

Chine demain pour hier, Pourrieres, Aix-en-Provence, France

July 7, 1990, 9:00 p.m.

Gunpowder: 50 kg, fuse: 800 m, dried grass: 600 kg, paper: 500 kg

10,000 m²

approximately 3 seconds

Cai Guo-Qiang

Century with Mushroom Clouds: Project for the 20th Century (1996)

10 g gunpowder

1 second

Nuclear test sight, Nevada , February 13-14, 1996

Cai Guo-Qiang

Cray Dragon/Cry Wolf: The Ark of Genghis Khan (1996)

108 sheepskin bags, wooden branches, paddles, rope, 3 Toyota

engines, cover page and excerpts from periodicals

350 x 1,986 x 261 cm overall

Installation, "Hugo Boss Prize 1996"

Solomon R. Guggenheim Museum, SoHo, New York

Collection, Solomon R. Guggenheim Museum, New York

Cai Guo-Qiang

Inopportune: Stage Two (2004)

Tigers: paper mache, plaster, fiberglass, resin, painted hide;

arrows: brass, bamboo, feathers; stage prop: styrofoam,

wood, canvas, acrylic paint;

Dimensions variable

Installation view: MASS MoCA, North Adams, MA

Collection of the Artist

Cai Guo-Qiang

Inopportune Stage One, 2004

Nine cars and sequenced multichannel light tubes

Dimensions variable.

Seattle Art Museum, Gift of Robert M. Arnold, in honor of the 75th Anniversary of the Seattle Art Museum, 2006.

Exhibition copy installed at Solomon R. Guggenheim Museum, New York, 2008.

Cai Guo-Qiang

Borrowing Your Enemies Arrows, 1998

Wooden boat, canvas sail, arrows, metal, rope, Chinese flag, and electric fan

Boat approximately 60" x 23' 7" x 7' 6" (150 x 720 x 230 cm);

arrows 24" (62 cm)

Gift of Patricia Phelps de Cisneros in Honor of Glenn D. Lowry

The Museum of Modern Art, New York

Cai Guo-Qiang

An Arbitrary History: River, 2001

Installation incorporating bamboo and resin riverbed,

water, yak skin and wooden boats; and works by

the artist presented as different components

Dimensions variable

Collection of the artist (riverbed and boats),

Various private and public collections (other components)

Cai Guo-Qiang

Reflection- A Gift from Iwaki, 2004

Excavated wooden boat and porcelain

Dimensions variable

Caspar H. Schübbe Collection

Cai Guo-Qiang

New York's Rent Collection Courtyard, 2008

Newly created for *Cai Guo-Qiang: I Want to Believe*

At the Solomon R. Guggenheim Museum

February 22- May 28, 2008

Cai Guo-Qiang

Venice's Rent Collection Courtyard, 1999

Realized June 1999 at Deposito Polveri Arsenale, Venice

For *Aperto Over All*, 48th Venice Biennale

108 Life-Sized Sculptures Created on Site By Long Xu Li and
nine guest artisan sculptors,

60 tons of clay, wire and wood armatures, and other props and tools for
sculpture, four spinning night lamps, facsimiles photocopies of documents
and photographs related to *Rent Collection Courtyard* (dated 1965)

Artwork not extant

Commissioned by Venice Biennale

Olafur Eliasson

Your sun machine (1997)

Marc Foxx Gallery, Los Angeles, 1997

Olafur Eliasson

The weather project (2003)

Installation

Turbine Hall, Tate Modern, London, UK

October 16, 2003- March 21, 2004

Courtesy of the artist; Tanya Bonakdar Gallery, New York; and neugerriemschneider,
Berlin

Olafur Eliasson

Notion Motion (2005)

Mixed media

Dimensions variable

Courtesy the artist; Tanya Bonakdar Gallery, New York; and neugerriemschneider,
Berlin

Olafur Eliasson

Moss Wall (1994)

Wood, moss, wire

Dimensions variable

Courtesy the artist; Tanya Bonakdar Gallery, New York; and neugerriemschneider,
Berlin

Olafur Eliasson

Remagine, 2002

Spotlights, wall mounts, and control unit

Dimensions variable

Collection Fonds National d'Art Contemporain, Ministère de la Culture, Paris

Olafur Eliasson
Reversed Waterfall, 1998
Scaffolding, steel, water, foil, wood, hose, and pump
122 4/5 x 109 2/5 x 63'' (312 x 278 x 160 cm)
Thyssen-Bornemisza Art Contemporary

Olafur Eliasson
Beauty, 1993
Fresnel lamp, water, nozzles, hose, wood, and pump
Dimensions variable
Collection Museum of Contemporary Art, Los Angeles

Olafur Eliasson
Take Your Time, 2008
Mirror foil, aluminum, steel, motor, and control unit
Dimensions variable
Courtesy the artist; Tanya Bonakdar Gallery, New York; and neugerriemschneider,
Berlin

Olafur Eliasson
Soil quasi bricks, 2003
Fired compressed-soil tiles and wood
Dimensions variable
Private collection
Courtesy the artist; Tanya Bonakdar Gallery, New York

Olafur Eliasson
The natural light setup, 2008
Fluorescent lights, projection foil, and control unit
Courtesy the artist; Tanya Bonakdar Gallery, New York; and neugerriemschneider,
Berlin

Olafur Eliasson
Inverted Berlin sphere, 2005
Stainless steel, mirror, bulb, and dimmer
63 x 63 x 63'' (160 x 160 x 160 cm)
Collection of Martin Z. Margulies, Miami

Olafur Eliasson
Sunset kaleidoscope, 2005
Wood, steel, color-effect filter glass, mirrors, and motor
18 x 18 x 70 in. (45.7 x 45.7 x 177.8 cm)
Collection of John and Phyllis Kleinberg

Olafur Eliasson

Colour spectrum kaleidoscope, 2003

Color-effect filter glass and stainless steel

29 ½ x 29 ½ x 78 ½'' (75 x 75 x 200 cm)

Collection of David Teiger

Olafur Eliasson

Model room, 2003

Clipboard display cabinets and mixed-media models, maquettes, and prototypes

Dimensions variable

Courtesy the artist; Tanya Bonakdar Gallery, New York; and neugerriemschneider, Berlin

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