ROBERT SMITHSON UND KYBERNETIK: SPRACHE, TECHNOLOGIE UND ABSTRAKTION

Dissertation
zur Erlangung des Grades eines Doktors der Philosophie
am Fachbereich Geschichts — und Kulturwissenschaften
der Freien Universität Berlin
und an der
Université Paris 8 Vincennes Saint-Denis
Ecole Doctorale Esthétique, Sciences et Technologies des Arts

vorgelegt von

Maud MAFFEI

2016

ROBERT SMITHSON AND CYBERNETICS: LANGUAGE, TECHNOLOGY AND ABSTRACTION

Dissertation
submitted to the
Kunsthistorisches Institut der Freien Universität Berlin
Fachbereich Geschichts — und Kulturwissenschaften
and to the
Université Paris 8 Vincennes Saint-Denis
Ecole Doctorale Esthétique, Sciences et Technologies des Arts
for the degree of Doctor of Philosophy

Maud MAFFEI

2016

Erstgutachterin:
Madame la Professeur Catherine PERRET
Professeur en Esthétique et Théorie des Arts
Université Paris 8 Vincennes Saint-Denis

Zweitgutachter:
Herr Professor Dr. Gregor STEMMRICH
Professor in Kunstgeschichte
Freie Universität Berlin

Tag der Disputation:
17. Juni 2016

Zusammenfassung

Seit dem Anfang des 21. Jahrhunderts erfährt das Werk von Robert Smithson (1938-1973) ein erneutes Interesse. Jedoch, wurde die Bedeutung der Auswirkung von Theorien der Kybernetik auf sein Werk bis heute nur wenig aufgezeigt.

Mit Smithsons Schriften und Notizbücher als Ausgangsbasis, analysiert die Vorliegende Untersuchung den Stellenwert der Kybernetik in seinem Denken und seinem Werk durch die engen Beziehungen, die Sprache, Technologie und künstlerische Abstraktion dort eingehen.

Ausgehend von den Prinzipien der Kybernetik, formuliert Smithson eine Kritik der modernistischen Abstraktion und legt den Grundstein für seine eigene künstlerische Arbeit. Als er sich für Fragestellungen der Kybernetik interessiert, erkennt er, dass sich in ihr neue Darstellungsprobleme stellen. Er bekräftigt daraufhin eine semiotische Grundlage der bildenden Kunst, nämlich eine unsichtbare, auf Sprache gründende Struktur, wie sie der klassischen Kunst wesentlich ist.

Die Werke von Smithson vollziehen Umkehrungen des Sinns auf verschiedenen Ebenen, die in drei Teilen der Dissertation untersucht werden: Umkehrung der traditionellen Vorstellung des Zeitlosen in der westlichen Kultur (I), Umkehrung der modernistischen Abstraktion (II), Umkehrung des Verhältnisses zu Zeit und Gedächtnis (III). Diese drei Umkehrungsformen zielen darauf, die Formen des Kunstwerks im elektronischen Zeitalter neu zu denken.

Diese Dissertation analysiert, auf welche Weise sich Smithsons Werk konstruiert, wie sie sich vollzieht und welche Implikationen sie im Laufe der Zeit mit sich bringt. Damit ist es gezeigt inwieweit die künstlerischen und ästhetischen Probleme, die Smithson im Zeitalter der elektronischen Revolution in den Jahren 1960-1970 aufwirft, bis heute mit der Situation der zeitgenössischen Kunst im Zeitalter der digitalen Revolution von Bedeutung sind.

Abstract

The work of artist Robert Smithson (1938-1973) enjoys a renewed interested since the beginning of the XXIst century. However, the importance of the impact of cybernetic theories on his work has not been stressed so far. Taking as essential basis Robert Smithson's notebooks and writings, this dissertation consists in an analysis of the impact of cybernetics in his thought and art through the close relationships between language, technology and artistic abstraction.

With the principles of cybernetics, Smithson formulates a critique of modernist abstraction and builds the foundations of his artistic practice. Focusing on issues at stake in cybernetics, he is aware of new representation problems. He then reaffirms a semiotic basis for visual arts, namely an invisible structure that is essential in classical art.

Smithson's works achieve rotations of meaning that appear at the different levels that are studied in the three parts of the dissertation: rotation of the notion of timelessness as traditionally dealt with in Western culture (I), rotation of modernist abstraction (II), rotation of the relation to time and memory (III). With these three types of rotations Smithson rethinks the forms of the artwork in the age of electronics.

This dissertation analyzes how Smithson's work constructs, how it operates and what it implies over time. It shows how the plastic and esthetic issues Smithson contemplates at the time of the electronic revolution in the years 1960-1970 resonate to the present day with the situation of contemporary art at the time of the digital revolution.

The light hits me and reflects all of me into the camera.

The words leave me and are reflected back into my ear and into your ear.

You're hearing and seeing a world of double reflections and refractions.

Time… in this isolated capsule of television experience is cut off from time

as we usually experience it.

Nancy Holt, in *Boomerang*[1]

---

[1] *Boomerang*, video by Nancy Holt and Richard Serra, 1974.

TABLE OF CONTENT

TABLE OF CONTENT

Introduction

I'm not sure how to express it, but certain art looks back at you with the time that the artist has spent looking at it.

Mel Bochner[2]

This research is an analysis of the place of cybernetics in the thought and art of Robert Smithson (1938-1973) through the close relationships between language, technology and artistic abstraction. His writings and notebooks are here an essential basis. This study is divided into three parts that correspond to three stages of Smithson's reflection on the problem.

In the late 1950s, at about twenty-two years old Robert Smithson paints in the vein of abstract expressionism, feeling "very much at home" with it as he remembers. In 1960 he suddenly turns his back to such an approach and develops figurative pictorial works questioning religious themes. He writes: "I am a modern artist dying of modernism." He understands that we cannot go beyond the Modernist medium specificity and purity. Why has Modernism turned stifling? In order to understand this, Smithson engages in an archaeology of western society that goes beyond the artistic field. He comes to see that modernist abstraction and a certain growing technology "fanaticism" at that time are linked: they both take their roots in the specialization of Western society since the Industrial Revolution in the late eighteenth century. It is indeed from this moment that art becomes absolutely retinal, increasingly masking the language basis upon which it is built in classical art.

Smithson tends to reaffirm a language basis for visual arts but by other means than in the past and by other means than the ones pursued by many of his contemporaries

---

[2] Mel Bochner, in *About Eva Hesse*, in *Solar system and restrooms, writings and interviews*, 1965-2007, October books, MIT Press, 2008, p. 155.

who share the same motivations. He reaffirms it through issues at work in cybernetics, about which he understands that it brings into play new representation issues. Smithson attempts to dismantle theoretically and plastically the wheels of an artistic modernity whose specification he sees as a dead end. He shapes the terms of a paleomodernity where the most contemporary meets the most archaic, a way to question the sources of this modernity and envision other relationships than those of its one-way street.

I- From the beginning of the XXIst century to the 1960s, from Nice to New York

In 1999, a year before the *Spiral Jetty's* thirty years anniversary, artist Nancy Holt, Robert Smithson's wife donates the monumental work to the Dia Art Foundation. Two years later, the spiral re-emerges from the waters of the Great Salt Lake of Utah driving renewed interests and studies on Robert Smithson's work. In 2004, the Museum of Contemporary Art of Los Angeles dedicates this re-emergence by organizing a retrospective of Smithson's work, organized by Eugenia Tsai and Cornelia Butler. In 2005, the exhibition travels to the Whitney Museum of American Art in New York. That year, I entered the Villa Arson National School of Fine Arts in Nice, France. When five years later, I graduated from the MFA, I knew only vaguely his work. I discovered his work and was called by it the following year when I had the opportunity to read his 1969 interview with Patricia Norvell, and then read his writings.

The way he talked about his concept of nonsite and his thoughts on language resonated immediately with the issues that had emerged in my work over the past two years. It was the first essential element that persuaded me to engage in this PhD work. In order to give an understanding of the problems at stake in my work as I graduated, let us go back quickly to the Diploma exhibition.

For the MFA diploma in 2010, I presented to the jury an exhibition of four works, the last works realized in the year, making the radical choice to show no documentation of the works I had done the previous years, marked by an almost Stakhanovite practice of drawing, sculpture and video. For the Diploma exhibition, the rooms were

nearly empty, a quite arid proposal for anyone attached to objects: three video installations and a work in progress taking the form of a website.

Each video installation worked with the video-projected text as essential material. They were fictions written and thought in relation to the spaces in which they were exhibited. For each of them, the plasticity and spatiality of each video was worked in a different way. I was looking for a visual tactility and was tending to point an interstitial space between perception and conceptualization, giving an awareness of the gap between the perception of the text fleeing with the effects of retinal afterimage created by light and color in relation to space, and the conceptualization of these fleeing words. I was building fictions where the back and forth movements between perception and conceptualization were revealing this interval between the two. Any construction of a message had to be immediately deconstructed. Nothing could ever be fixed. I was working on this duality between the physicality of perception and conceptualization, a continuous back and forth between the mental and the physical, which I discovered later, is essential to Smithson's work.

The website was a work apart, I worked on a book entitled *Brief Lives* by John Aubrey, an eighteenth century English writer and historian known for having discovered the site of Stonehenge. My work consisted of a reconfiguration of the text kept in the state of notes in order to provide a hyperlink reading, a reading that was latent in the notes that trace the lives of 426 of his contemporaries.[3] I had first taken the freedom to work without thinking about its exhibition form, then the website that I entitled *John Aubrey's Lane* was exhibited in a room of the Villa Arson's Art Center after I graduated. By the time I had to think of its exhibition mode and that it was chosen to project it on the ground, I realized that with the projection of the website in a physical place, there was a potential to play on the same relations as those which I was dealing with in video, namely the back and forth between the physicality of perception and conceptualization.

The Exhibition for the Diploma was the culmination of a radical shift in my work since 2009, a moment where I suddenly found myself unable to continue working as I did previously in drawing, sculpture and video, feeling a discomfort that exceeded the mere dissatisfaction or the discrepancy between my plastics desires and their

---

[3] I realized this work in the frame of the research group *La forme des idées* directed at the Villa Arson by Joseph Mouton and Patrice Maniglier at the time. The book of the *Brief Lives* was indicated to me by Joseph Mouton and later on I thought of setting up this work that I still consider as a work apart from the rest of my practice.

formulations. These plastic fictions in the form of video installations were for about a year and a half my only possible form of artistic expression. A necessary "moment" and with all the problems that kept unresolved with them at the time of the Diploma, they are the beginning of an attempt for broader plastic investigations, questioning with other materials some fundamental problems of figuration and representation.

The first arid aspect of these works immediately induced the jury to categorize them as "conceptual" in the line of the 1960s conceptual art. I was told that the plastic problems I was dealing with had no future, but I was awarded the diploma with honors "only for your remarkable thesis", a thesis that I had written in parallel with the completion of these works and which dealt precisely with the use of text as plastic material in the works of some so-called conceptual artists in the years 1960-1970. Was there a contradiction? Rejecting the exhibited text and validating my analysis of another type of exhibited text? One thing was clear — my work might have appeared outdated, without future or of present-day — the text as plastic material proved to be a thorny problem.

After having introduced the text in my plastic work in the course of 2009, I started to look at the use artists made of it in the course of art history in order to grasp the issues and to position my own practice. At that moment, I saw that my motives joined in the broad lines those of some artists in the 1960s, particularly in the field of so-called conceptual art:

-Rejection of the image as well as the abstract form, the latter being immediately linked to formalism

-Need to work on fundamental problems of figuration and representation but differently from the image

-Search of a suspension of meaning by means other than the traditional disciplines of the visual arts

-Attempt to redefine our relationship to the object.

We know it well, the contemporary art of the beginning of the XXIst century is based on the foundations laid in the 1960s, but why did the art student I was, was getting back to these foundations so drastically?

The introduction of the text was complicated for me: it was problematic for a fundamental value that underpinned my practice, namely a certain universal, making works intelligible to all. The text was a problem because it immediately restricts its audience to the people who understand the language in which the work is written. [4] Working with words was upsetting my "ideals", yet I found myself using them as main materials. I had to work with these tensions. In this new type of work, I proceeded instinctively in the same way as before, in drawing, sculpture or images with video: I was still working with perceptual and spatial problems, now dealing with the relationship between signifier / signified, thinking the work in relation with a specific or generic location, and also dealing with the tactility of the video projection by testing various projection surfaces. Still, I felt the need to understand the issues of the use of the text beyond or rather on this side of the mere problems of my practice. To be able to dig the issues that the use of text was posing in relation to the plastic practice and to allow me to build with awareness the future of my plastic practice, this doctoral work revealed to be a necessary step.

II- Problem: the "cybernetic moment" in the art of the 1960s

Why the text as main plastic material at the beginning of the XXIst century?
Why the text as main plastic material for some artists in the 1960s?
I studied the issues of the text as plastic material through two Master's thesis: the first one was written as part of my MFA in 2010, it is entitled *For a physical experience of the written text*. In this research I focus on the approaches of the text in the practices of some American and European artists between the years 1960-1970. This work was followed in 2011 with a dissertation on the work of artist Robert Barry between the years 1968-1970, entitled *Robert Barry's empty rooms*, it was written in the frame of my Master 2 in Philosophy at University Paris Ouest Nanterre.
Through these theses I developed some of the aesthetic and political issues in the use of text as plastic material, but I felt that some elements were still missing in order to get a deep understanding of these issues.

---

[4] In this I could not agree with the statement of artist Lawrence Weiner who explains how language represents for him the most universal material since everyone can appropriate it and make the effort to seek the most suitable interpretation.

The doctoral work on Smithson's work helped me understand what I now see as a key issue of the time of the 1960s and which underlies the plastic practices working with text as main material. This issue is cybernetics with the developments of computer code as a minimal language. The use of the text as main material in the work of some artists acts as a kind of code a little less reduced than computer code. In the renewal of studies on the art of the 1960s today at the beginning of the XXIst century, the "cybernetic moment" that these years represent is not emphasized. I understood that one cannot understand the issue of the text in the art of the 1960s without analyzing the relation of these works with cybernetics.

How does cybernetics reveal to be fundamental to understand the issues with which what is called "conceptual" art works? How does Smithson think cybernetics in theory and in practice? What is Smithson's relation to so-called conceptual art?

1-Materiality and language basis of art in the age of cybernetics

From its earliest uses, the term conceptual art itself was very criticized by some artists as it tends to suggest a purely cerebral art while many artists of this movement insist on the material aspects of their art, explaining that the materiality of the work changes in relation to traditional meanings, takes other forms. The insistence on the primacy of the idea that Sol LeWitt states in his *Paragraphs on conceptual art* (1967) is a way of reaffirming art as *cosa mentale,* what Leonardo da Vinci declared in the Renaissance defending the place of the *disegno* which means both drawing, project, outline and intent. In the early twentieth century, Marcel Duchamp already reaffirmed art as a mental thing, building a work that is the result of what he prefers to call "grey matter" rather than "intellect".

Robert Barry notes well the shift in the materiality of a work when he states: "We are looking at objects from another point of view, so that it seems that art is changing, but I personally do not see a real difference between the new art and the 'traditional' art of the object. (…) we are producing a different kind of object (…) We are not really destroying the object, but just expanding the definition, that's all." [5]

---

[5] Robert Barry, interview with Ursula Meyer, October 12, 1969, on www.ubu.com ("We are looking at objects from another point of view, so that it seems that art is changing, but I personally do not see a real difference between the new art and the "traditional" art of the object. This may be due to changed emphasis of certain aspects of the new objects that we did not emphasize in the object of the past, like changeability and temporality. Objects may change right before your eyes. (…) we are not really getting away from the object; we are producing a

Let us recall the Group of artists Art & Language's response to the article *The dematerialization of the art object* by Lucy Lippard and John Chandler published in February 1968 in *Studio International*, a response where the artists raise the necessity to redefine what we mean by "material" when stating "that some art should be directly material and that other art should produce a material entity only as a necessary by-product of the need to record the idea is not at all to say that the latter is connected by any process of dematerialization to the former."[6] The idea of materiality must be re-thought, it is in trouble in the 1960s.

We must see that the use of text as an almost exclusive material by some so-called conceptual artists is to be understood as a double movement:

- On the first hand, it is one of the most direct ways to reintroduce meaning in the work of art, countering the dogmas of a modernist critique that steadily wished to empty the works of all that would be alien to its medium specificity.

- On the other hand the use of text questions the materiality of language as a kind of code a little less reduced than computer code.

As heterogeneous may be the practices around the text as plastic material in the 1960-1970s, they share in common the will to reaffirm a language basis to art.

Robert Barry noted further that "the idea of language or words as objects being used in the visual arts is not a new idea, the two are entwined, they always have been."[7] He noted this, remembering how as a child he had been marked by an annunciation by Jan van Eyck at the National Gallery in Washington D. C., where the words coming out of the mouth of the virgin speaking to angel Gabriel were reversed: "Of course, if God is in heaven looking down, it's not upside down to Him!" Barry's remark about the form of the text in an annunciation from the Flemish Renaissance is important.

---

different kind of object. I did not get away from it. I have not produced objects; maybe I found objects. We are not really destroying the object, but just expanding the definition, that's all. Like art, that keeps on being expanded, that seems to include more and more things.")

[6] " (…) When you point, among many others, to an object made by Atkinson, « Map to not indicate etc. », that it has « almost entirely eliminated the visual-physical element », I am a little apprehensive of such a description. The map is just as much a solid-state object (i.e. paper with ink lines upon it) as is any Rubens (stretcher-canvas with paint upon it) and a such comes up for the count of being physically-visually as perusable as the Rubens…(…) that some art should be directly material and that other art should produce a material entity only as a necessary by-product of the need to record the idea is not at all to say that the latter is connected by any process of dematerialization to the former.") In *Six Years, The Dematerialization of the Art Object from 1966 to 1972*, University of California Press, 1973, 2001, pp. 43-44.

[7] Robert Barry, in interview with Catherine Spaeth on March 21st, 2009, re-transcribed on Catherine Spaeth's blog (http://www.catherinespaeth.com/blog/). "Of course, if God is in heaven looking down, it's not upside down to Him! So the idea of language or words as objects being used in the visual arts is not a new idea, the two are entwined, they always have been.").

Not only text and image are there interlaced but image is built after language, this is its language basis.

From Impressionism on, the growing insistence on the retina comes to gradually hide the language basis of classical art, which leads to the famous "eyesight alone" of the modernism of art historian Clement Greenberg. The plastic works working with language as main material appear well as the most direct attempts to find a way out of modernist abstraction.

This language basis, we shall see, Smithson calls it the "blind order", the structure on which in any culture — whether we like it or not or whether we are aware of it or not — the visual is built.

While some so-called conceptual artists work with text as an almost exclusive material, Smithson insists on the fact that language must act as an invisible structure, the foundation of the "grey matter" or *cosa mentale* that gives birth to works. He finds that the practices of these artists realize only "one side of the work" and that it is not possible to stay with that only side: "I think that conceptual art that depends completely on written data is only half the story. You not only have to deal with the mind; you have to deal with material. (…) I find a lot of that work fascinating. I do a lot of it myself. But that's part… that's only one side of the work." [8]

2- Language as code: contraction and expansion of the work

The plastic practices working with text as essential material emerge as the first electronic computers are being developed with computer programs and what is called "code". The code is a contraction of a text or an image, a reduction of a data to a binary sequence of 0 and 1 in order to make them circulate and enable them in a second stage to redeploy, finding back their image or text form. The principle of code itself is as old as mankind, from the Latin *codex,* collection of laws, a term that comes form *caudex* which originally meant a tree trunk: this last image shows how the idea of memory is here involved, any code implies an inscribed memory. Every language is a code that consists in fixing a memory so that it can circulate, the musical score is one, representational painting is another.

---

[8] Robert Smithson, *Interview with Patricia Norvell*, in *Recording conceptual art*, University of California Press, 2001, p. 131.

Among the artists in the 1960s, there is this will to think the work of art in its most reduced form, to look for a way of working that is close to computer code principles. Many artists use the word "information" to talk about their works in terms similar to the coded information flowing through electronic channels. The term is commonly used in communication theory to deal with a content that circulates, some artists talk about their works in the same terms. For example, Lawrence Weiner states that "perhaps the art I make (…) differs from the previous art in that it relies upon information, whereas previously the art was just presented."[9] However after having used the term like his comrades, Smithson becomes quite critical about the enthusiasm it arises among artists and then declares in 1973 "A rock could be considered information".[10] Dan Graham notes about one of his works of the time that he deals with *in*-formation, what is being formed rather than a content: indeed when a content is being moved, it cannot escape change, thus moving information is always in-formation, being formed.[11] In 1970, art historian Kynaston McShine uses the term as the title for the exhibition he organizes at the MOMA: *INFORMATION*. This exhibition tended to give an overview of new practices and questioned what the term "information" could mean from a plastic point of view. Smithson there presented his film *The Spiral Jetty* with the photographs of the spiral by Gianni Pettena.[12]

Like the computer code that is a contraction of a text or image, some artists consider the text as the contraction of an experience, an action, a gesture, a sensation. They actually reactivate by other means the function of the classical work of art namely a

[9] In *Art without space*, in *Having Been Said, Lawrence Weiner writings & interviews 1968-2003,* edited by Gerti Fietzek & Gregor Stemmrich, Hatje Cantz, 2004, p. 30.

[10] Robert Smithson, *Interview with two students*, 1973, p. 5. In Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, Washington D.C. "A rock could be considered information, but usually what we think of as information is a photograph of a rock. I would prefer to call them both material. (…) There is no need to try to justify information or explain it away. It's a vague term too. (…)You could then say, like, War and Peace is information. A book can be considered art, or an article can be considered art. I just think that's a kind of vogue word, information. (…) Yeah, I think that there's a need to try to reduce everything to information. And things are too variable to me anyway, because there again one is trying to get away from that kind of formal straitjacket: reductionism."

[11] About his work *Schema for a Set of Pages* en 1966. He expresses it as follows: " I think I'm interested in fusing something in the present without documentation. (…) I wanted the things I did to occupy a particular place and be read in a particular present time. The context is very important. I wanted my piece to be about place as in-formation which is present. " In March 8 1970, WBAI-FM, New York. Symposium moderated by Lucy R. Lippard with Douglas Huebler, Dan Graham, Carl Andre, Jan Dibbets; program initiated by Jeanne Siegel, Art Programs Director, WBAI. *In Six Years, The Dematerialization of the Art Object from 1966 to 1972,* p. 158.

[12] The exhibition keeps famous for having consecrated conceptual art in an important institution. It offered a large place to practices working with photography as document, film, but also works taking the form of telegram, telex, mails, etc. Kynaston McShine presented the exhibition as follows: "The activity of these artists is to think of concepts that are broader and more cerebral than the expected 'product' of the studio. With the sense of mobility and change that pervades their time, they are interested in ways of rapidly exchanging ideas, rather than embalming the idea in an 'object'. However, the idea may reside on paper or film." Sur https://www.moma.org/momaorg/shared/pdfs/docs/press_archives/4483/releases/MOMA_1970_July-December_0003_69.pdf?2010

memory in the form of visual re-presentation of an object, which is a type of contraction. Indeed language is the primary means of representation. Its use in the field of fine arts enables to leave aside the modernist emphasis on the visual, reintroducing this time differently than in classical art some problems that deal with representation.

The code is a contraction that allows a possible physical redeployment of "information". Similarly many artists work with the text in terms of a contraction of an object or an event using the form of textual statements: this gives the possibility of a physical re-deployment of the work, following the model of an ancient type of code hitherto never used in the visual arts: the musical score.

The most obvious and most famous example of such forms is that of Sol LeWitt's *Wall Drawings* from 1968 on. The written statement acts as a score for the realization of the drawing. As for the musical work, the perennial and absolute form of the work is the score (statement), and as for the musical work, its spatial form is ephemeral and relative, it is "re-performed" by different interpreters at an exhibition. With each new realization, the work expands and when the exhibition is over and the drawing is erased, it contracts again, it then remains only as score.

We will see that Smithson works with this principle of contraction and expansion with the nonsites he sets up in 1968. This double movement of contraction / expansion is represented by the shape of the spiral whose curved line indicates a movement that goes inward as well as outward. This form is the invisible form that structures his works from 1968 on and is made visible in his great work in 1970, *Spiral Jetty*.

3- The reduction of the code against the modernist reduction

As the computer code realizes the reduction of all things to a sequence of 0 and 1, in the 1950s art historian Clement Greenberg theorizes what he calls the "modernist reduction". Modernist reduction means that each work should focus on the questioning of the fundamental properties of its medium. For example the painting should work on the questioning of its flatness. This type of contraction differs from the computer code's principle of contraction / expansion. The shape that characterizes it is not the spiral, an open shape, but the circle to the extent that in questioning the specificities of its materials, the modernist work is closed on itself.

Some practices working with text as main material take the path of modernist reduction rather than code reduction in developing tautological statements. The most famous example is that of Joseph Kosuth in particular with his neon works since 1965, inspired by Ludwig Wittgenstein's research on tautology.[13]

Very early, Smithson understands how these uses of language in art for self-referential purposes pursue the principle of modernist medium specificity by other means rather than to propose a way out of this modernism. He says with humor that "conceptual art is like the credit card that has nothing to back it up. Abstract painting is like money that has nothing to back it up. That's why so many galleries are going bankrupt." [14] Moreover, he also points the contradictions of a famous statement from Sol LeWitt in his *Paragraphs on conceptual art* (1967) following which "irrational thoughts should be followed absolutely and logically." [15] In contrast Smithson positions against logic and against any system idea in relation with art works, a vogue idea at the time among artists and that is related with the developments of cybernetics. He explains the dangers that can involve LeWitt's declaration: "Sol LeWitt says if you take something irrational and follow it out logically, that's conceptual art. But with that kind of thinking, we could say that a good example of conceptual architecture is Dachau, since that's an irrational idea carried out logically. That's kind of problematic, I think." And he pursues that the term "conceptual" is a "cancerous growth of meanings."[16]

How then can one make works based on language and have them bypass the means of logic? The movement of contraction/expansion of computer code seems to be a promise and a model provided that it makes possible the passage from the reduced conceptual form to the physical redeployment. If this conceptual/physical relationship can be realized, that is to say if we do not stay with a "conceptual architecture", these works trace a possible way out of the impasse of the modernist reduction's problems.

---

[13] For example, we think of *five words in green neons*, from the collection of the Whitney Museum of American Art.

[14] "Both abstraction and conceptualism form substitutes for natural ressources or physical development. (…) conceptual art is like the credit card that has nothing to back it up. Abstract painting is like money that has nothing to back it up. That's why so many galleries are going bankrupt." In Letter to Enno Develing, n.d., Robert Smithson and Nancy Holt Papers, Archives of American Art, reel 3833.

[15] Sol LeWitt, *in Paragraphs on conceptual art, Artforum*, June 1967, 5th paragraph.

[16] In *Interview with two students*, 1973, in *Robert Smithson and Nancy Holt Papers*, Archives of American Art, Washington D.C.

Through the confrontation of the computer code's reduction model with the modernist reduction, we see how the issues of language, technology and abstraction intersect in complex ways on the art scene of the 1960s: while modernist artistic abstraction develops by always emptying the artwork of its language basis, cybernetics and electronic machine that develop in all fields of society are based on computer code, a type of minimal language.

Smithson grasps these problems with insight and attempts through his writings and works to provide the passage from a reduction to another, from the modernist reduction to the code reduction, thus a way out of the impasse of modernism.

As with many so-called conceptual art works, there is in his work that same search for a new type of universal and he works with the same problems as artists using language as almost exclusive material. Thanks to his erudition, he is at the time one of the artists of his generation who manages to take the most distance and thus the most vision to analyze the flaws of modernism. His friend Dan Graham remembers it, remarking "Bob did know art history. Nobody else did."[17] Because of his sensibility, his requirements and artistic desires, he is among the ones that have the most strength to find solutions and realize them.

III- Smithson, the marvelous monster

1- Smithson on the New York art scene in the 1960s-1970s

Smithson can be seen as a comet on the New York art scene of the 1960-1970. His work develops from the late 1950s until his death in 1973, revealing a plastic thought of such a concentration that it is hard to realize that it sets up through such a short time span. His place remains singular and solitary, and due both to the amount of knowledge he brings into play as much as his insightful analysis, he can be seen as a kind of monster. According to Dan Graham, though he would have liked to build a group of artists around the Daniel's gallery in the mid 1960s and then around the Dwan Gallery, he was never accepted into the Minimalist's group. He was too different, too unconventional, his words and his works were too strange.

---

[17] Dan Graham, In *Interview with Eugenia Tsai*, New York, October 27, 1988, in *Robert Smithson: Zeichnungen aus dem Nachlass*, Münster, Westfälisches Landesmuseum für Kunst und Kulturgeschichte, 1989, p. 10.

His friend Carl Andre characterizes his works as some "corners of hell", explaining how they originate in a skepticism and notes at the same time that he was a "magician": "Bob was a magician — I am sure; his writings and polemics are formulae and incantations efficient in the raising of demonic forces".[18] This is also what recalls Robert Morris remembering the sagacity and humor of their friend who could not stop linking the most remote references: "One of the great artists of our time. Who else had the wit to notice that 'the first truly bad body art was the Crucifixion.' Or that Soho on a sunny Saturday afternoon 'looked like the Raft of the Medusa'? "[19]

Smithson builds his thought and work away from all academic environment. He attends during only a short time the courses of the Art Student League of New York (1955-1956). His library is impressive, he brings together works from all fields: mathematics, geology, history, religion, philosophy, literature, art history. His notebooks are encyclopedias. There he takes notes on his reading and reflections, we feel his desire to dissect everything, to reformulate and rebuild everything differently, focusing on a variety of cultural fields.

On the art scene of the 1960-1970, Smithson does not stop producing sparks as he tries the most risky things. In 1965 he dares to publish a text on Donald Judd in which he completely diverts the work of the artist from the minimalist principles stated by the latter a short time before in *Specific objects*. He "invented" Judd as notes well Dan Graham and Judd never forgave him. Two years later, in 1967, his letter of response to art historian Michael Fried's *Art and Objecthood* is published in *Artforum*. There he shows the contradictions of the critic's remarks against the theatricality of minimalism, taking him gaily in derision and calling him a "naturalist". Another two years later, in 1969, he withdraws from the Tenth Contemporary Art Biennial of São Paolo because "To celebrate the power of technology through art strikes me as a sad parody of NASA. (…) Art aping science turns into a cultural malaise. (…) If one wants teamwork he should join the army. A panel called 'What's Wrong with

---

[18] Carl Andre, 1975, Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834.
[19] Robert Morris in *Autour du problème corps/esprit/ Around the mind/body problem*, in Art Press 193, juillet 1994, p. 30.

Technological Art' might help." [20] Later in 1972, he withdraws this time from his participation in the Documenta 5 in Kassel but publishes a text entitled *Cultural confinement* in the catalog, such a provocative text that Smithson gets inscribed on the blacklist of many critics and exhibition curators. Smithson does not stop playing the bad boy, always there to point what is wrong, putting his person and his career at risk — this does not matter to him, this posture is part of his art.

2- Smithson writer

Smithson has ensured that each of his works, written or sculptural, should be grasped as a crystal, i.e. should be understood from a multiplicity of points of view, each time giving us a different view. Some texts combine so many references and go in so many directions that as notes very well art historian Pamela Lee, they first leave us with the effect of a "communicative jamming", what happens when computer information is not grasped because of an interference in communication. [21] Like crystals, his writings first show a few facets and make us understand that many other facets are to be grasped behind those that we perceive, provided that we make the crystal rotate. This is how they fascinate artists and art historians who stick to it. Depending on the facets you look at, you can understand his texts according to a multitude of approaches, focusing on the place of allegory, the relation to history, romanticism, land art, reclamation art, the relation between art and science, science fiction ...

During the first readings of his texts, one inevitably gets lost among the reflections they create. This is what the artist was looking for. His texts have no center and refuse to communicate their "subject matter" immediately. Smithson indeed characterized his practice with that phrase which is a permutation of the terms of Pascal's famous phrase: "Nature is an infinite sphere whose circumference is everywhere and whose center is nowhere." Smithson's texts work by deconstructing all the assumptions that can be expected from a text: they make rotate the signified and the signifiers in an infernal whirlpool. He states that "artists don't write, they build with words." His

---

[20] "To celebrate the power of technology through art strikes me as a sad parody of NASA. (…) Art aping science turns into a cultural malaise. (…) — He pursues as follows: "If technology is to have any chance at all, it must become more self-critical. If one wants teamwork he should join the army. A panel called 'What's Wrong with Technological Art' might help." In letter to Gyorgy Kepes, July 3, 1969, in *Writings*, p. 369.
[21] Pamela Lee talks about "*communicative jamming*" about his text *Quasi-infinities and the Waning of Space* (1966), in Pamela Lee, *Ultramoderne: or, how George Kubler stole the time in the sixties art,* in *Chronophobia*, The MIT Press, 2004, p. 251.

sculptures and texts work in the same way by using the same principles of deconstructions. The texts are particularly fascinating not only because of the references they involve but due to their poetics where opposites confront constantly and where metaphors and allegories are constructed in hyperboles then giving the feeling of a collapse due to an effect of "communicative jamming". The writings were essential to me in order to understand how he builds his thought in relation to contemporary issues, which was not possible with his sculptural works. It is for this reason that they are at the foundations of this dissertation.

IV- Smithson's archives: methodology

My stay in Smithson's archives was short and intense: a month in September 2014 split between the New York Center of the Archives of American Art and the Washington D.C. Center. I actually worked with the archives until the end of writing of the dissertation because I was allowed to take photographs of the documents consulted and to record the images of microfilmed documents. Thus I read and re-read all of these materials in the course of my work, which was necessary due to their density and complexity.

In New York we find most of Smithson's documents that have been microfilmed: his notebooks, writings, drafts for his published and unpublished texts, unrealized projects, much of his correspondence, press clippings, some magazine articles he archived. We find these materials one after the other on the microfilm reels. In the Archives of American Art Center of Washington D.C. we find the non microfilmed documents: some unpublished interviews, some of his correspondence, photographs taken as part of his projects, photographs of exhibitions, works in the form of large maps, models and other small works and books of his impressive library.

The consultation of the archives was fundamental to my work concerning the following points:

-The discovery of the notebooks allowed me to grasp on the spot how Smithson builds his thought. The notebooks consist of a maze of drawings, sketches, spontaneous short notes as well as drafts for his texts and notes about the books he read. From long notes and reflections on Mannerism, one passes to numerous sketches dealing with perspective problems, some drawings of crystals and spirals, a

genealogy of mirrors in art. Each idea or beginning of reflection has its space, whether minimal or concentrated. For example suddenly two words on top of a page: "*time limit*". Again alone on a page: *"a new quality entered the best abstract art…"* What is the story he is trying to write? That of the art of his generation? Many short notes to which is given all the space of a page would in themselves deserve a whole dissertation: "*Two types of art history have sprung from the modern world both of which appear false. One is the Avant Garde which has its origin in the Dreyfus Affair and on the ruins of French aristocracy.*"[22] The notebooks were essential to grasp how he poses his thoughts and how much space he gives to each.

-The correspondence of the year 1961 with the gallerist George Lester who organizes a personal exhibition of Smithson's works at his Rome gallery this same year and the correspondence with his wife Nancy Holt during his stay in Rome revealed to be particularly important: in these letters, Smithson expresses his malaise in relation to modernism and there he poses the reflections that he develops in his works to come. We will see how Smithson's stay in Rome is essential about his discovery of the Mannerism of the XVIth century.

-The discovery of unpublished texts was very precious: there are several texts in which he analyses the ecologist movements emerging at that time, in particular *Pathopolis (*first entitled *The great pollution hysteria)* or *Island of broken glass*, a text written following the opposition of some ecologist activists to the realization of his project of work of the same name on which we will focus. These texts seem to have been too virulent in order to be published. The *Interview with two students* which took place shortly before his death in 1973 and kept in the archives in Washington D.C. was important about his reflections on media theory and conceptual art.

-The reading of the drafts and the various versions of his texts enabled me to understand how he builds his works step by step: he spends a considerable time on the layout and on searching for the most suitable combinations. We can see how from one project to another, his ideas go their way, for example the layout project for his unpublished text *What really spoils Michelangelo's sculpture* (1966-1967) is rethought with *Ultramoderne* published in 1967.

-At last the consultation of the books of his library was a dizzying and essential experience: Smithson had books from all cultural fields. His annotations and

---

[22] *Notebook*, Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834.

highlights of passages of these books have been a great help to support my analysis. For example, we will develop the point, the annotation he makes of a passage of Norbert Wiener's *The human use of Human Beings: Cybernetics and Society* summarizes in itself the direction he gives to his art: "entropy is beauty."

Before my stay in the archives, I had already read some of the books in his library on the basis of the quotations from his texts and the list of these books established by Valentin Tatransky.[23] The consultation of Smithson's highlighted and annotated books as well as the discovery of other books was very important to me.

The bus trip between the two archive places was part of the experience of Smithson's works as we pass on the way of his native New Jersey, a road he often took, about which he specifically deals with in *A tour of the monuments of Passaic (1967)* and about which he notes how the industrial landscape had influenced his art.

V- Dissertation outline

Across its three stages, this dissertation tends to give an understanding of the importance of Cybernetics in Smithson's thought through the analysis of the close relationship between language, technology and artistic abstraction.

The first axis, *Timelessness: from symbol to computer code* focuses on how Smithson passes from an organic painting that questions the religious iconography between 1960-1963 to a type of crystalline sculpture in 1964 in which he uses relatively new technological materials (neon, plastic). While his commitment in the questioning of religious art apparently origins in a rejection of the values of the modernist theory, we then see how the questioning of science gradually takes the place of religion that as Smithson notes has become an "atrophied realm". The developments of the emerging media theory, and especially cybernetics such as theorized by Norbert Wiener, is an essential influence in this passage.

The second axis, *Abstraction in the age of cybernetics — reconfiguration and dismantling*, focuses on how with the principles of cybernetics Smithson realizes a redefinition of artistic abstraction. From the concept of nonsite on (1968), he upsets

---

[23] Published in *Robert Smithson*, edited by Eugenia Tsai and Cornelia Butler, The Museum of Contemporary Art Los Angeles/ University of California Press, 2004.

the concept of artistic abstraction by developing what he calls "degrees of abstraction" and "ongoing abstractions", relative abstractions in contrast with the absolutism of modernist abstraction. The nonsite is an archaic multimedia work conceived on the principle of distance seeing (*tele-vision*), a heteronomous work as opposed to the modernist autonomy. We will see how he characterizes his approach as "aesthetic communication", a plastic response to communication theory.

The third axis, *Non-memoria in non-historia: memory and futility*, focuses on the new forms of memories that Smithson considers in his redefinition of abstraction. Smithson's abstraction rejects the concept of history on which the position of the viewer was traditionally built (Alberti). It approaches a kind of primary and timeless abstraction: that of ancient funerary art that he translates considering contemporary technologies such as photography and cybernetics. In this he is influenced by Erwin Panofsky's *Tomb sculpture* (1964) that helps him refute the positivism of Marshall McLuhan's *Understanding Media*, published the same year. We analyze how the timelessness of funerary art influences him in the characterization of the forms of the work of art in the age of cybernetics.

The following work consists in an analysis of how Smithson's work constructs, how it works and what it implies over time. By focusing on the close relationship between language, technology and artistic abstraction, I will show how the plastic and esthetic issues Smithson sees at the time of the electronic revolution in the years 1960-1970 resonate with the situation of contemporary art at the time of the digital revolution.

PART ONE

TIMELESSNESS: FROM SYMBOL TO COMPUTER CODE

Non-sight, light, entropy

PART ONE

CHAPTER 1

NON-SIGHT: FROM SIGN TO SIGNAL
From organic painting to crystalline structure

The icon is sinking into a big vat of grey paint, and there is nothing to do but watch it
sink like a watchman watches the light.
Robert Smithson, *The iconography of desolation*, 1962[24]

Our eye is consumed,

But it is still an eye.

The eye torn.

The eye whole.

Torn,

But

Whole.

Woe, to them that distort the eye.

For the mystery

Of the white stone.

Amen

Robert Smithson, *To The Eye of Blood*[25]

To The Eye of Blood is a poem that Robert Smithson wrote in 1960. This poem is addressed to a painting of almost the same name *The Eye of Blood* (Fig. 1. 1 and 1. 2). Both are part of a series of paintings and "incantations" that Smithson aimed to have printed together for a book, the painting on a page, the incantation on the other.[26] *The Eye of Blood* figures a Cyclops, whose big black eye is haloed with black waves that

---

[24] *The iconography of desolation in The collected writings of Robert Smithson*, edited by Jack Flam, University of California Press, 1996, p. 327.

[25] *To The Eye of Blood*, in *The collected writings of Robert Smithson*, edited by Jack Flam, University of California Press, 1996, p. 318.

[26] *The Eye of Blood* is a 33 x 24'' (about 84 x 61 cm) vertical collage and tempera work on cardboard.

radiate on the top half of the painting. On the fragments of white paper that stand in lieu of pieces of the body on the lower half of the painting, we distinguish signs of wounds painted in red. The Cyclops's eye might just have been drilled, and now it releases its energy and memory. The eye is "torn but whole" — does it still see? Or is it now about to become an empty hole? The questions will appear naive. Effectively, the sense of sight itself cannot be represented. Only the sensed object can be. But still: *does this eye still see?* Of course, we could answer the question if we were at the place of the Cyclops of Smithson's painting.

Four years later, in 1964, Smithson did a work for which we could now be able to answer this question. With *The Eliminator*, the viewer becomes the Cyclops figured in Smithson's 1960 painting (Fig. 1. 3). The work is built of two mirrors placed vertically and forming a corner. This corner is cut into two by the neon in the middle and at the bottom is another mirror. The neon reflects in the three mirrors, each mirror sending back its reflection to the others. The red neon light flashes intermittently, creating a very violent effect on the viewer's retina, leaving her/him with an afterimage of this light. In his text describing the work, Smithson insisted on the stunning effect it produces on the eyes of the viewer due to the violence of this flashing light:

"The Eliminator overloads the eye whenever the red neon flashes on, and in so doing diminishes the viewer's memory dependencies or traces. Memory vanishes, while looking at *the Eliminator*. The viewer doesn't know what he is looking at, because he has no surface space to fixate on; thus he becomes aware of the emptiness of his own sight or sees through his sight. Light, mirror reflection, and shadow fabricate the perceptual intake of the eyes. Unreality becomes actual and solid. *The Eliminator* is a clock that doesn't keep time, but loses it. The intervals between the flashes of neon are 'void intervals' or what George Kubler calls, 'the rupture between past and future'. *The Eliminator* orders negative time as it avoids historical space."[27]

The red neon here replaces the red paint of *The Eye of Blood*. It stands for the blood in the same way the red paint was standing for it. However in contrast with the painting, it aggresses the viewer's eyes physiologically. What takes place is a reversal: *The Eye of Blood* can be considered as a figuration of what the viewer feels in front of *The Eliminator*, she/he literally takes the place of the Cyclops and can feel what it makes

---

[27] *The Eliminator*, in *The collected writings of Robert Smithson*, edited by Jack Flam, University of California Press, 1996, p. 327.

to loose sight for an instant, being stunned, light-headed by the neon. This shift from the organic figure of the wounded Cyclops to the crystalline structure of *The Eliminator* targeting the viewer with its flashes is a determinant moment in Robert Smithson's practice. In 1972, he recalls of this work as follows: "I did show a light piece with mirrors, *The Eliminator*, 1964, my only light piece. I showed it in an exhibition called *Current Art* where I met Dan Flavin."[28]

A figurative painting like *The Eye of Blood* was a strange object in the middle of the general tendency toward abstract art at that time in New York. What could have been Smithson's motivation in dealing with figures as figuration was not popular around him? How did he come in a short time span to shift from organic figures to crystalline structures?

I- "A MODERN ARTIST DYING OF MODERNISM"

1- Excavating the surface of abstraction

The Eye of Blood and *To the Eye of Blood* are elements of a body of works that marks a religious turn in Robert Smithson's work (Fig. 1. 4). From 1960 on, in his paintings, poems and writings, he starts to question the religious iconography, our relationship to religion and the relations between art and religion. He puts an end to this "religious period" in 1962, it culminates in 1961 with his personal exhibition of paintings at the George Lester Gallery in Rome. As Smithson relates, the gallerist George Lester proposed him a personal exhibition of his works in his gallery in Rome on the basis of his painting *Quicksand* from 1959, that he had seen exhibited the same year in the window of the Alan Gallery in New York (Fig. 1. 5).[29] In 1959, Smithson had his first solo exhibition at the Artist's Gallery in New York where he exhibited similar abstract paintings. About the works of this exhibition, he said: "Strangely enough, the work sort of grew out of Barnett Newman; I was using stripes and then gradually introduced pieces of paper over the stripes. The stripes then sort of got into a kind of archetypal imagistic period utilizing images similar, I guess, to Pollock's *She-Wolf* period (Fig. 1. 6) and Dubuffet and certain mythological religious archetype." The

---

[28] *Interview with Paul Cummings for the Archives of American Art*, 1972, Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, Washington D.C.
[29] Smithson relates about *Quicksand* as an "abstraction done with gouache (…) fundamentally abstract, sort of olives and yellows and pieces of paper stapled onto it; it had a kind of incoherent landscape look to it."

works Smithson produced for the exhibition at the George Lester Gallery appeared as a radical shift from his abstractions such as *Quicksand*. He recalls of that moment: "At that time I really wasn't interested in doing abstractions. I was actually interested in religion, you know, and archetypal things, I guess interested in Europe". His first trip to Rome in 1959 in view of his exhibition at the George Lester gallery was determinant in that shift. He was apparently turning his back to American abstraction, venturing to question the secular tradition of religious imagery.[30]

What could have been Smithson's motivation in working with religious themes and going back to figuration to explore this issue? The fact that he refers to Barnett Newman as his main influence about his series of painting exhibited at the Artist's Gallery gives us some key to understand what he started to investigate.

In 1945 Newman tended in his essay *The Plasmic Image* to redefine abstract painting by presenting it as the response to the spiritual needs of Man.[31] He tended also to characterize an American abstraction as opposed to European abstraction, which for him had always had its base in "the material world of sensuality."[32] "Can anyone name a single European painter who is able to dispense completely with nature?" he asked.[33] He saw European abstraction as always related to nature, to existing images, while the new American abstraction tended to build mental shapes: "a kind of personal writing without the props of any known shape." This is what he declared to be a "metaphysical act" as opposed to the "transcendental act" of European abstract painting.[34] What he termed the "highest human insights" are of a spirituality "approaching theological grounds" notes artist Mel Bochner.[35]

---

[30] As he said retrospectively: "T. S. Eliot then had a big influence on me, of course, after going to Rome. So I had to wrestle with that particular problem of tradition and Anglo-Catholicism, the whole number."

[31] Barnett Newman, *The Plasmic Image*, in *Selected Writings and Interviews*, ed. by John O'Neil, University of California Press, 1990-1992, p. 139. — "the painter of the new movement clearly understands the separation between abstraction and the art of the abstract. He is therefore not concerned with geometric forms per se but in creating forms that by their abstract nature carry some abstract intellectual content." And "abstract art can become personal, charged with emotion and capable of giving shape to the highest human insights, instead of creating plastic objects, objective shapes which can be contemplated only for themselves because they exist between narrow limits of extension." Ibidem.

[32] Barnett Newman, *Response to Clement Greenberg* (1947), in *Selected Writings and Interviews*, ed. by John O'Neil, University of California Press, 1990-1992, p. 162.

[33] He pursues as follow "The American artists under discussion create a truly abstract world which can be discussed only in metaphysical terms. These artists are at home in the world of pure idea, in the meaning of abstract concepts, just as the European painter is at home in the world of cognitive objects and materials." Ibidem.

[34] "To put it philosophically, the European is concerned with the transcendence of objects while the American is concerned with the reality of the transcendental experience." Ibidem.

[35] "Newman's project to rescue abstraction from meaninglessness required him to reconstruct it on something approaching theological grounds." Mel Bochner, *Barnett Newman: Writing Painting/Painting Writing*, in *Solar System and Restrooms: writings and Interviews 1967-2007*, MIT Press, 2008, p. 147. — As remarks Gregor Stemmrich: "in his paintings Newman dealt repeatedly with themes taken from Jewish mythology, and in addition designed a model for a synagogue, which, however, did not prevent him from painting the fourteen Stations of the

When Smithson starts to question religious themes in his two-dimensional works from 1960 on, he turns his back to Newman as well as the influence that other abstract expressionist painters had had on him. He explains that he needed to experiment a "more traditional approach". This step back to figuration in a more "traditional" way with the forms of religious imagery enabled him to "overcome this lurking pagan religious anthropomorphism" as well as the "iconic imagery" which he saw in the paintings by the New York School artists. This questioning of the roots of European religious imagery is what enabled him to subsequently develop the crystalline works for which he keeps famous: works that completely reformulated the issue of abstraction in art.[36] In his interview with Paul Cummings, he expresses that he was interested in "a kind of iconic imagery that I felt was lurking under a lot of abstractions at the time (…) in Pollock and in De Kooning and in Newman, and to that extent still is." He says that he "hadn't developed a conscious idea of abstractions", and that he was still "wrestling with a kind of anthropomorphic imagery."

Anthropomorphic imagery and iconic imagery—Newman presented his paintings as a new kind of icon in the sense that it acts as a sign.[37] Anthropomorphism appears in his text *The fourteen stations of the cross*, 1958-1966 about his series of painting of the same name, when he says: "And there was of course the problem of scale. I wished no monuments, no cathedrals. I wanted human scale for the human cry. Human size for the human scale." (Fig. 1. 7) [38]

Cross and to orient himself to the spirituality of primitive art". Gregor Stemmrich, in *Piet Mondian, Barnett Newman, Dan Flavin: Painting as Medium and Model*, in *Piet Mondian Barnett Newman Dan Flavin*, Hatje Cantz, 2014, pp.20-21.

[36] About his influences and passage to crystalline works, he relates in his interview with Paul Cummings:

"Robert Smithson: Initially – well, like this was when I was nineteen – the impact was Newman, Pollock, Dubuffet, Rauschenberg, de Kooning; even Alan Davie who I had seen I think at the Viviano Gallery; the whole New York school of painting. I mean I felt very much at home with that when I was in my late teens. But then I rejected that in favor of a more traditional approach. And this lasted like from maybe 1960-1963.

Paul Cummings: Why do you think you rejected those things that you …?

Robert Smithson: I just felt that they were too – they really didn't understand … First of all, anthropomorphism, which had constantly been lurking in Pollock and de Kooning, I always felt that a problem. I always thought it was somehow seething underneath all those masses of paint. And even Newman in his later work still referred to a certain kind of Judeo-Christian kind of value. I wasn't that much interested in a sort of Bauhaus formalist view. I was interested in this kind of archetypal gut situation that was based on kind of primordial needs and the unconscious depths. And the real breakthrough came once I was able to overcome, I would say, this lurking pagan religious anthropomorphism. I was able to get into crystalline structures in terms of structures of matter and that sort of thing."

[37] This is what he expresses in *The Plasmic Image* when saying: "The effect of these new pictures is that the shapes and colors act as symbols to (elicit) sympathetic participation on the part of the beholder in the artist's vision." Barnett Newman, *The Plasmic Image*, in *Selected Writings and Interviews*, ed. by John O'Neil, University of California Press, 1990-1992, p. 139.

[38] *The fourteen stations of the cross*, 1958-1966, in *Selected Writings and Interviews*, op.cit., p. 190. — Smithson criticizes Newman's anthropomorphism in his text *The pathetic fallacy in esthetics* (1966-1967): "This fallacy is

Smithson became fully able to express this problem of anthropomorphism "lurking" in abstract expressionist works once he was able to overcome it in his own work after 1963.[39] His paintings between 1960-1963 in which he uses figurative religious imagery were born out of his discomfort in relation with abstract art, "an inner crisis" as he states in several letters of his correspondence with George Lester. In this correspondence, Smithson tends to justify the reasons that made him turn his back to abstract art, not yet having the necessary distance to fully explain his discomfort with it. In a letter dated April 7, 1961, he writes: "My *Man of sorrow* is paralysed in a Divine agony, unable to explode into some cheap *Ism*. This creates an almost unbearable tension. I am a modern artist dying of Modernism."[40]

His critics on modernist abstract art are very violent: "We shall not get lost in the latest obscure mess of abstraction." (letter of May 17, 1961). In another undated letter, targeting Pollock's paintings he writes: "Action painting is the art of despair. And so these days, there are many dead people to bury the dead. Action is against passion. Action leads to dead matter, while passion leads to the life spirit."[41] About Happenings developing in these years with Alan Kaprow, he says: "Witness the new vogue of 'Happenings' sweeping NYC's beatnik realm, where art is swallowed up by action. The Happenings are simply 'the black mass' of the retarded, and should be stopped. Sometimes, I wish somebody would free us from freedom."[42] He sees

revealed in Barnett Newman's *The Stations of the Cross*. Here is the pathetic reduction at its most extreme. Newman's art begins with abstraction but results in an anthropomorphizing of space. In other words, instead of representing pictorial events he represents spatial events on an empathic scale, i.e. 'man as the measure of space.' The viewer is expected to empathize with 'the story of each man's agony'. This is 'expressed'—valid abstraction is not expressive. Abstract art does not suggest 'life or death'." In *Writings*, p. 337. In contrast, Ad Reinhardt's model of abstract art is a big influence for Robert Smithson about the issue of timelessness that Reinhardt places as opposed with any idea of progress and about his distinction about art and life. In *Art-as-art* (1962), Reinhardt writes: "the one thing to say about art and life is that art is art and life is life, that art is not life and that life is not art. (…) Art that is a matter of life and death is neither fine nor free. (…) The one thing to say about art is its breathlessness, lifelessness, deathlessness, contentlessness, formlessness, spacelessness, and timelessness." In *Art as Art, the selected writings of Ad Reinhardt*, ed. by Barbara Rose, University of California Press, 1975, pp.54-56. — Newman's statement is very close to the famous declaration by artist Tony Smith about his sculpture *Die* when questioned about the meaning of the size of the work:"Q: why didn't you make it larger so that it would loom over the observer? A: I was not making a monument. Q: then why didn't you make it smaller so that the observer could see over the top? A: I was not making an object." This declaration, which artist Robert Morris quoted in epigraph of his *Notes on Sculpture part II*, was also commented by art historian Michael Fried in his famous essay *Art and Objecthood* to demonstrate that Smith's sculpture (and other works of similar human size by artists he called the "litteralists", i.e. minimal artists) was anthropomorphic: "One way of describing what Smith was making might be like a surrogate person—that is, a kind of *statue*" in Michael Fried, *Art and Objecthood*, *Artforum* June 1967.

[39] We will go back to the issue of anthropomorphism in Smithson's work in our Chapter 1 Part III: Smithson in fact builds a new kind of anthropomorphism.

[40] Robert Smithson, Correspondence with George Lester, Archives of American Art, Smithsonian Institution, Washington D.C., Reel 5538.

[41] Undated letter, Correspondence with George Lester, Archives of American Art, Smithsonian Institution, Washington D.C., Reel 5538.

[42] Ibidem. About the new paintings he is working on for the 1961 exhibition at the Lester Gallery, he says: "The mortified frontal figures have developed into figure proportions, that contain gestures of movement, but movement

Happenings as a continuation of action painting. In a reactionary way he states: "The artist should mortify his mortal eyes with ascetics, and keep away from aesthetics."[43] What is Smithson investigating when working with religious imagery?

Turning the back to trendy abstract art was a difficult posture. This is what appears in his letters to Lester. He feels very anxious about Lester's reception of the new works and thus tends to prepare the terrain as much as he can: "Good art can never be 'liked'. One must feel good art or understand it, but never 'like' it."[44] And:

"Don't be afraid of the word "religion". The most sophisticated people in Manhattan are very much concerned with it." he writes in his letter dated May 17, 1961.

2- Excavating the façade of Catholicism

In much of his paintings and writings of the period, Smithson intertwines terms and figures related to the sacred with others related to the profane. *Creeping Jesus*, a painting with collages from 1961 deserves to be described for the virtuosity with which Smithson mixes the timeless religious figures with temporal vernacular ones (Fig. 1. 8). The painted figure of the Christ on the cross is jammed between collages taken from advertising and newspapers. It reformulates strikingly the millennial imagery of the Christ on the cross. Jesus is nailed on the cross with his arms crossed (not a common posture for a crucifixion) and his legs slightly raised, as if he was making an effort, thus revealing a burlesque look. Parallel to Jesus on the cross, a collaged car with skis on the roof appears like sliding down the cross. At the feet of the cross are displayed collages of three women taken from a same advertising paper: on the left, the first one (in lieu of Mary-Magdalene) is dressed with an ochre costume of the 17th century (recognizable due to the strawberry around the neck) and holds a gleaming chromed kettle. On the right of the cross another female figure wears an 18th century blue dress (Mary), she holds an ironer, and at her right, the third figure is dressed with a 16th century costume, her hand on the button of a mechanical machine of which we cannot distinguish more. On top of Mary-Magdalene on the left, a fragment of picture of some cherries evoke the blood of the sacrifice. On top of Mary,

---

that is free from action. One should say figures that don't 'suffer' from action. The figures in this new series live in a world without nature. Nature cannot touch these figures because the figures are not real. The figure in this sketch is where it is not." Undated letter, Correspondence with George Lester, Archives of American Art, Smithsonian Institution, Washington D.C., Reel 5538.

[43] Ibidem.

[44] Ibidem.

is a fragment of a constellation in a night sky that may indicate the world of beyond, echoing the ceiling of some Byzantine church. On top of this sky, a big "36 %" taken from a newspaper fragment: is it indicating Jesus's remaining living time? The collaged hand holding a bell in the right hand corner seems to confirm it: time is fleeing. In the sacred scene — supposed to be timeless, out of history — Smithson introduces the flow of time. The anachronistic imagery of the advertising that he uses with the mix of historical periods (16th, 17th and 19th centuries) shows how this scene has crossed centuries. Indeed, the figuration of a sacred scene contains all the past figurations of this scene. Each new one keeps the memory of the one that was done before, reacting against it or pursuing its spirit. *Creeping Jesus,* with its collages, shows how the deposition from the cross consists in fact in a succession and an overlapping of imageries. On the right bottom hand corner, the bell rings: is it indicating the instant of transubstantiation or the end of this millennial iconography?

With such a painting, Smithson ventured to find an actualization of this millennial theme. Such an actualization questions the word *religion* in itself. After Cicero's *De Natura Deorum* in the 1st century BC, *religio* comes from *legere*, to harvest, to gather. In the 20th century, the linguist Emile Benveniste remarked that the word's meaning was also to "recollect", to "revise".[45] Defending the *relegere*, Benveniste explained that it indicated an inner attitude, not a gathering of beliefs and practices. At the opposite, *ligare* would indicate the outer reality of the cult.[46] With *Creeping Jesus*, Smithson's work of revision of the theme seems first to go back to Cicero's meaning of *religio,* the pre-Christian meaning of the word, in order to actualize the Christian iconography. It questions the "link" and it questions the relation of art to religion as well as that of religion to art.

---

[45] As he noted in *Le Vocabulaire des institutions indo-européennes*, and as recalled by Jacques Derrida in *Faith and Knowledge*, the understanding of *religio* as a "link" came after, in the 4th century AD with the Christian Lactantius's *Divinae Institutiones*: with a word pun, this latter declared that *religio* derived from *religare*, to "link", to "tie". This yaw from the Roman sense of *religio* defined the philosophical concept of the new religion: man's bond to God. Emile Benveniste pointed that following the latin derivation, "religare" could not give "religio" but "religatio" — Emile Benveniste, *Le vocabulaire des institutions indo-européennes*, tome 2, Editions de Minuit, 1969, p. 271

[46] In *L'originalité du vocabulaire religieux latin, in Rites, cultes, dieux de Rome*, Paris, 1979, p.42-43, Robert Schilling, explained that in fact the dualism *religere/religare* already existed in the Roman society: "when they dealt with the reality of religion, they thought about the concept of *ligare*. When they evoked the psychologic aspect of *religio*, and *religiosus*, they refered to *relegere* (considered as a synonymous of *retractare*)." — « quand ils traitaient de la réalité de la religion, ils songeaient au concept de *ligare,* quand ils évoquaient l'aspect psychologique de la *religio* et du *religiosu*s, ils se référaient à *relegere* (considéré comme un synonyme de *retrac-tare*). » quoted by Maurice Sachot in *religio/superstitio—historique d'une subversion et d'un retournement*, in *Revue de l'histoire des religions*, tome 208 n°4, 1991.

In a more general way in his works during this period, Smithson's approach of the *religio* in fact oscillates between the two etymologies/meanings of the term, *religare*, to bind, and *relegere* as to revise. In 1972, Smithson explains that what interested him at that moment was the "façade of Catholicism"[47] The façade is the figuration of the historical scenes of Catholicism. It is thus the art. In his studies on Renaissance Annunciation, art historian Daniel Arasse insisted on the fact that such religious scenes where "figurations" and not "representations" since the incarnation had never been seen.[48] He wonderfully showed how Renaissance painters found visual languages to figure in painting the mystery of incarnation: the unknown and inconceivable, what had never been experienced. Since it is something that painters had never experienced, the issue was to imagine ways of making it appear physically in painting, with the visual language of painting. The invisible and inconceivable had to be made visible and understandable. Daniel Arasse showed that Renaissance painters succeeded in figuring such a scene by creating "disorders in the perspective" and tricks in the framing of the scene (Fig. 1. 9 and Fig. 1. 10). Such figurations were highly conceptual works. This is what attracted Smithson to it. In a note he writes: "What brings art to revelation is the mystery of 'incarnation' or 'the word of flesh'".[49] As confirmed by critic and poet Thomas Ernest Hulme in his essay *Humanism and the religious attitude* that Smithson had read: "At the Renaissance, there were many pictures with religious subjects, but not religious art in the proper sense of the word".[50] All the play of the painters was to find painterly solutions to the problem of incarnation. Religious themes were a challenge to question materially issues related to the visible and the invisible.[51]

Smithson's investigation on religious themes enabled him to understand as he declared "the roots of — I guess you could call it Western civilization really, and how

[47] *Interview with Paul Cummings for the Archives of American Art*, 1972, in *The collected writings of Robert Smithson*, edited by Jack Flam, University of California Press, 1996, p. 282.
[48] Daniel Arasse, *Perspective et annonciation, Histoires de peinture,* éditions Denoël, 2004, Folio essais Gallimard.
[49] Robert Smithson, Correspondence with George Lester, Archives of American Art, Smithsonian Institution, Washington D.C., Reel 5538, undated letter.
[50] T. E. Hulme, *Humanism and the religious attitude*, in *Speculations* (1924), Routledge & Kegan Paul Ldt, 1960, p.9. Also quoted by Harold Rosenberg in *Barnett Newman*, Abrams, New York, 1978.
[51] In *To The Eye of Blood*, Robert Smithson does not deal with a specific religious theme. However in one passage he makes an inconceivable space, a space that could not be experienced physically: "*Yet, no wind blows at all. / Hermit in the Desert, / Lead us. / Hermit of the Jungle, / Lead us. / We can not walk. / We can not stop. / Not in this space." Not in this space* is in fact "no space" since we cannot move nor stand still. We just get the feeling of a cancellation of space: the nought. It is a conceptual state, where *no wind blows at all*. And this means that there is no divine spirit: Smithson makes us go back to what might have existed before God.

religion had influenced art."[52] He then explained how such an investigation had been paramount to the development of his subsequent work: "I think I got to understand, let's say, the mainspring, you know, of what European art was rooted in prior to the growth of Modernism. And it was just very important for me to understand that. And once I understood that I could understand Modernism and I could make my own moves. I would say that I began to function as a conscious artist in around 1964-65. I think I started doing works that were mature. I would say that prior to the 1964-65 period it was a kind of groping, investigating period."[53]

In his letter to George Lester dated April 7, 1961, he expressed that his *Ikons* as he called his paintings at the time were "Ikons infused with the feelings of the Azted human sacrifice; the visions of the Spanish mystics; and the martyrdoms of the Early Church. Against backgrounds of dead-space and no-time, I painted ikons bleeding from every stroke; without mechanical distortions, unlike the dispassionate distortions of cubism, each stroke becomes a raw nerve." [54]— "Each stroke becomes a raw nerve" because part of the Catholic imagery is questioned. In his icons and writings questioning the religious, Smithson focused particularly on the problem of time and on that of sight. This is what we now need to develop.

II- RELIGION, TIME AND SIGHT

1- Revelation versus Duration: Smithson, Greenberg, Duchamp

In his text *The iconography of desolation* from circa 1962, Smithson develops the confrontation between the sacred and profane, timeless and temporal that we saw in *Creeping Jesus*. Namely, he opposed the religious and instantaneous "revelation" to the "profane decaying force of duration".[55] Defending a devotional art relying on "revelation" and grace as opposed to the "worldly fixations of human environments fed by duration or factual events", he confronts the timeless to the earthly relativity

---

[52] *Interview with Paul Cummings for the Archives of American Art*, 1972, in *The collected writings of Robert Smithson*, edited by Jack Flam, University of California Press, 1996, p. 282.
[53] Ibidem, p. 283.
[54] Correspondence with George Lester, Archives of American Art, Smithsonian Institution, Washington D.C., Reel 5538
[55] "When revelation is eclipsed by the decaying force of duration, it is dismissed or ignored by social or abstract humanists because of a lack of contrition, or even attrition." In *The Iconography of Desolation*, *The collected writings of Robert Smithson*, op.cit. p. 320.

and asks "how does one redeem the revealed God from the dregs of nuclear heresy?"[56] Through this confrontation between sacred and profane, he is questioning not only issues "lurking" in abstract expressionism as he expressed, but also the leftovers of religion at work in the two branches of contemporary modernism: the greenbergian formalist branch and the duchampian branch.

In contrast with Clement Greenberg's modernist theory based on the preponderance of vision upon the other senses, the famous "eyesight alone", in *The Iconography of Desolation* Smithson opposes sight against faith: "Art was never objectified during the Ages of Faith; art was an 'act' of worship. 'icons' would never be looked at like a tourist looks at an *objet d'art*, even if he is a 'passionate sightseer'."[57] Faced with religious "icons", one should not so much look at them. Rather one has to be in empathy with what is figured.[58] Icons are signs. Not sight, but thought.

Smithson's position here clearly takes the opposite view to Clement Greenberg's position concerning the issue of "revelation" since for the art historian the "sudden revelation" of the painting must be "purely" visual. Greenberg develops this theory of "revelation" about the experience of painting in his essay *Sculpture in our time*, declaring that "the whole of a picture should be taken in at a glance; its unity should be immediately evident", it must "be grasped only in an indivisible instant of time."[59]

Smithson's declaration about revelation appears as a reversed parody of Greenberg's theory. Indeed, with the "eyesight alone" position, Greenberg builds an ethereal theory of art where "the human body is no longer postulated as the agent of space" and "matter is incorporeal, weightless and exists only optically like a mirage."[60] The experience of art should be instantaneous, with no duration, no dimensions. Greenberg's point resonates here precisely with Smithson's praise of revelation for its lack of dimensions, what we can also understand as "ethereality" when he says in *The Iconography of desolation*: "Revelation has no dimension. If it did, it would be dead in space and time. The early Christian fathers never fixated on dimensions in their

---

[56] Ibidem, pp. 320-322.
[57] Ibidem.
[58] This is what appears again in this sentence: "All dimensions must be exercised by a visual mortification of the eyes before iconographic vision can be experienced." *The collected writings of Robert Smithson*, op. cit. p. 321.
[59] Clement Greenberg, *Sculpture in our time*, in *The collected essays and criticism*, vol. 4, edited by John O'Brian, Chicago University Press, 1995, p. 60. "The whole of a picture should be taken in at a glance; its unity should be immediately evident" and the supreme quality of a picture, the highest measure of its power to move and control the visual imagination, should reside in its unity. And this is something to be grasped only in an indivisible instant of time. No expectancy is involved in the true and pertinent experience of painting; a picture, I repeat, does not 'come out' the way a story, or a poem, or a piece of music does, It's all there at once, like a sudden revelation… you are summoned and gathered into one point in the continuum of duration."
[60] Clement Greenberg, *The New Sculpture*, in *Art and Culture*, Beacon press, 1961-1989, pp. 143-144.

theology." He shows that the art historian's teleology with its search for the purely visual keeps a religious aspect due to the search for a kind of transcendence.

Right after this declaration about the non-dimensionality of revelation, Smithson refers to the counter-point of this modernist formalism, i.e. Marcel Duchamp's art, that he introduces with a digression: "If they did (the early Christian fathers), they would have developed icons something like Marcel Duchamp's nude descending the staircase, which Duchamp calls '…an expression of time and space through the abstract presentation of some motion'. Marcel Duchamp stopped painting early in his life because he wasted his art in time and space. Duration cut him off from revelation, thus confining grace to the chessboard. The fourth dimension is Yahweh's wrath upon a cursed humanity."[61]

In this short passage, Smithson summarizes in a parodic way the two currents of modernism as they appear in the 1960s: a formalist one that he sees as pursuing a search for transcendence and a "nominalist" or conceptual one introduced by Marcel Duchamp. It is well know that Henri Poincaré's scientific theories on the fourth dimension were a major influence on Duchamp as he was searching how to get out of the formalist issues of modern art. The translation of these theories in artistic terms enabled him to re-inject the "gray matter" in art. When Smithson presents Duchamp's fourth dimension (the *inframince*) as "Yahweh's wrath upon a cursed humanity" he appears to confront the formalist transcendence to the scientific immanence on which part of Duchamp's art is based — but still calling the *Nude Descending a Staircase* an "icon". What does he mean? Would Duchamp's art still have a religious aspect?

In 1973 Smithson reproached Duchamp to create "relics of the saints" by giving transcendence to manufactured objects: "he is just using manufactured goods, transforming them into gold and mystifying them (…) By the way I met Duchamp once in 1963 at the Cordier-Ekstrom gallery. I just said one thing to him, I said 'I see you are into alchemy'. And he said 'yes'."[62] This issue of alchemy is certainly Smithson's main difference with Duchamp: his critique on Duchamp is to maintain art in the domain of the sacred and to maintain a "mechanistic view". In a very

---

[61] *The Iconography of desolation*, *The collected writings*, op. cit., p. 322.
[62] In *Interview with Moira Roth*, in *The collected writings*, op.cit, p. 312. The interview was realized shortly before his death and published after his death in the *Artforum* issue of September 1973.

different way than the greenbergian formalism, Duchamp's art still pursues a religious aspect.[63]

We see how in *The iconography of desolation* in 1962, Smithson sketches critical views on the two branches of modernism, that of the "specific" modernism of Greenberg and that of the "generic" modernism of Duchamp as Peter Osborne termed them.[64] One can therefore understand that it is in this double critique that Smithson is trying to find another solution to modernism. A solution can be thought only after questioning in depth the religious relics upon which, in very different ways, the Duchampian modernism and the greenbergian modernism both rely. How does Smithson "announce" this way out of modernism in 1962 in his text *The iconography of desolation*?

2- The fall of Revelation into Duration

At one point of *The Iconography of desolation*, Smithson's discourse overbalances with the arrival of what he calls an "iconoscope" that makes all icons fall.[65] As is very well shown by art historian Jennifer Robert in *Mirror Travel, Robert Smithson and History*, Smithson's iconoscope is "an iconoclastic instrument. The device reduces the divinity to 'bits and pieces'."[66] Indeed, some passages of the text leave us perplex due to the contrasts and style variations: the clashes between religion and commercial society, the filmic vocabulary, and aspect of a kind science-fiction novel or horror movie: "Pitter-patter, pitter-patter. Puff. Puff. Puff. Lights! Camera! Action! Prepare for the practical martyrdom! A clever soul places the body into a deep-freezer on a bed of thorn, whereupon the soul proclaims, 'You'll forget ice-cream once you taste ice-blood'. Cut. Print it! Listen to the sounding brass or the tinkling cymbal: take your pick. 1-2-3-4. Forward! Footage, more footage! Dies irae, dies illa. Bring icon-400

---

[63] Smithson in fact shares many common points with Marcel Duchamp: in particular a great interest for Renaissance and Mannerist paintings that they both praised for their intellectual quality, what Duchamp termed "matière grise", grey matter. Their looks on such works were determinant in the development of their respective works. And we will see in chapter 4 Part II of this dissertation that the fourth dimension is essential in the development of Smithson's work, an influence from Duchamp.

[64] See Peter Osborne, *Anywhere or not at All: Philosophy of contemporary art*, Verso, 2013.

[65] "We now discover an iconoscope that shall forgive the divorce of heaven and hell while it flashes before us for our selective graces—the bits and pieces of divine catastrophe. Such a scope has lost all division and order. One must pick over the scattered icons the way a bum picks over the dumps. The iconoscope will now be plugged in."*The Iconography of desolation*, writings, p. 324.

[66] Jennifer Roberts, *Mirror Travel, Robert Smithson and History*, Yale University Press, 2004, p. 31. She pursues: "After the iconoscope is 'plugged in' the essay's controlled contrasts between sacred and profane break into a stuttering progression of overlapping imagery and shifting modes of address."

into the ultraviolet rays. No… wrong icon. Not the Behemoth. Let him be anathema! 'God is gone up with a shout…' (Ps.47:5). Icon $5 and up. With or without blood."[67] The icon falls down, the divine is like eviscerated, it is as noted J. Roberts "a filmic fall from grace into space". Reading the text, we get so much information that it makes you dizzy, and as says Smithson "all is shapeless delirium. Dizzy icons. Dizzy. Dizzy. Dizzy. Holy-Radio-Active System…hold it! Flash bulbs pop. Controls are giving out…"[68] Smithson's conclusion for this "filmic fall" of revelation in duration is that of a total zeroing: "the zeros must be painted at an average of one hundred per minute. Zeros within zeros for zeros by zeros." The fall of revelation into the materiality of the contemporary relativity is ineluctable and "The icon is sinking into a big vat of grey paint, and there is nothing to do but watch it sink like a watchman watches the light."[69] With this sentence, Smithson already announces the direction of his works to come: entropy as only way out from modernism.

3- Sight and stigmas: crepuscule of modernist theory

In paintings of the same period as *The Eye of Blood*, Smithson deals recurrently with the sacrifice of sight. In 1961, he renews the theme of the mockery of Jesus, a passage narrated in the Gospels where Jesus's eyes are banded so that he cannot tell who laughs at him. In Smithson's watercolour, entitled *Jesus Mocked*, the Christ with banded eyes tightens his arms on his chest to protect himself. On both sides, two heads are splitting on him. Jesus's body is haloed by serpentine lines that make us think of some earthworms (Fig. 1. 11). This same year, Smithson did a series of painting figuring the feet and hands of Christ. The *Feet of Christ*, a painting with tempera on paper, looks like a radiograph: the bones are drawn. A particularly striking point: the stigmas are more than simple holes. One of them looks like an eye: we distinguish well the pupil and the iris of the eye. The curving lines of the iris seem to show that the eye is like rotating. The two curves surrounding the stigma of the other feet are even stranger, as if the iris had opened and had burst. Why figure stigmas in such a way? They can only be "eye-stigmas" (Fig. 1. 12). Two paintings of hands with stigmas entitled *Man of Sorrow (the Forsaken)* raise the same question: the

---

[67] *The collected writings of Robert Smithson*, op. cit. pp. 324-325.
[68] Ibidem p. 325.
[69] Ibidem, p. 327.

33

stigmas also look like eyes (Fig. 1. 13 and Fig. 1. 14). Instead of figuring the whole body of the Christ as it is usually the case in the figuration of the Man of Sorrow, here Smithson only figured the hands with what we can call prominent "eye-stigmas". Hands are usually put in front of one's eyes to hide when crying, here it seems that the hands of the Man of Sorrow have kept —or torn off— the eyes they were hiding.

As he had given an actualization of the figuration of Christ on the cross, Smithson questions here this millennial iconography of the Man of Sorrow this time from the position of the viewer. Indeed the pain of the stigma is something that Jesus felt, thus Smithson's question is the following: how can we communicate this feeling visually? In his letter to George Lester dated April 7, 1961, he expresses that the viewer should be in empathy with the pain figured: "The paintings should make people mortified and full their eyes with suffering but for the lacerated soul. Those without souls can continue seeing 'truth' in targets."

How can there be any empathy if the viewer himself does not get wounded? The transformation of the stigma into an *eye-stigma* is a solution to this problem: at least the *eye-stigma* throws the viewer back to his own sight, and to his position as a viewer/voyeur of such a scene. By addressing the viewer his own position in front of such a figuration, Smithson turns upside down this millennial iconography of sorrow.

We noted that in *The Iconography of Desolation* Smithson expressed this preoccupation with regard to the issue of "looking at", questioning the way one looks at religious "icons".[70] In a letter to Nancy Holt that he wrote while he was in Rome for his solo exhibition in 1961, he expressed his discomfort about how people would "stare" at his paintings: "the way I feel now, I would rather have people look at my painting with a flashlight within a room faintly lit by violet lights and the air filled with the odor of heliotrope and jasmine. In the background the tender throbbing of tambourines could add a tone for a select few. But alas! People want to stare with aggressive eagerness or they feel they must stare in order to grant approval. There is something indecent about such staring."[71]

---

[70] *The collected writings of Robert Smithson*, op. cit. p. 321.
[71] Robert Smithson, letter to Nancy Holt, Monday the 24th, no month, no year, Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3832.

Robert Smithson's *eye-stigma* is a first step to address the viewer in his own position, to make her/him aware of this indecency about "looking at". The reversal operated by *The Eliminator* with which the viewer/voyeur becomes the "target", the object of sacrifice, appears as the most literal response to this discomforting "staring" of the viewers at his Rome exhibition. The scene of sorrow is here thrown back physically to the viewer. She/he takes the place of the Cyclops with the pierced eye of *The Eye of Blood*, her/his eyes become stigmas.

In his text for *The Eliminator*, Smithson says that now "the viewer doesn't know what he is looking at, because he has no surface space to fixate on". Mirrors and light create such a *mise en abyme* that there is no more point on which to focus. In spite of the pierced eyes that Smithson figured on *The Eye of Blood*, the "surface space" of the painting was a concrete object, reassuring in contrast to the infinite reverberations of the neon light and mirrors of *The Eliminator*. The abolition of the "surface space" of the painting marks another attack on Greenberg's theory about the medium specificity. For Greenberg, the flatness of surface is the specificity of painting, and painting should focus only on this quality. This is faced with the flatness of painting that vision alone works at best: the viewer is not supposed to move, corporeality is forgotten.[72] By avoiding all surface space to fixate on, *The Eliminator* negates all the postulates on which Greenberg's theory is based. "Eyesight alone" without its surfaces gets paralyzed. Moreover, with its neon light in the middle of mirrors, *The Eliminator* appears as an extraterrestrial object with regard to modernist categories of painting or sculpture.

In the line of the iconoscope of *The iconography of desolation* that made revelation fall into duration, *The Eliminator* is a concrete iconoclastic instrument as it deprives the viewer of any "memory dependencies or traces". It operates an erasure of all previous icons. Revelation is transformed into an annihilating physical shock. This shock does not carry any hope but instead subtracts memory data. The viewer is left only with the bodily experience created by the pulse of this electric light.

---

[72] It is in his essay *The New Sculpture*, praising the qualities of the contemporary sculpture that Greenberg expresses his famous "eyesight alone". He applies the visuality of painting to sculpture: "under the modernist 'reduction', sculpture has turned out to be almost as exclusively visual in its essence as painting itself." (…) In Clement Greenberg, *The New Sculpture*, in *Art and Culture*, op. cit, p. 142.

III- EXCAVATING PROBLEMS OF MODERN VISION

1-The "harassment of the Spectator", art in the modernist exhibition space

The aggressiveness of the viewers to which Smithson referred in his letter to Nancy Holt, reminds us of painter Ad Reinhardt's famous cartoon in which the viewer laughing at an abstract painting says: "haha what does this represent?" Suddenly the painting gets gifted with speech and throws back violently the aggressive question to the viewer: "what do you represent?" (Fig. 1. 16) Looking at *The Eliminator*, writes Smithson, the viewer becomes "aware of the emptiness of his own sight or sees through his sight".

In the end of his essay *The Eye and the Spectator,* published in *Artforum* in 1976, critic and artist Brian O'Doherty confirms that: "The punishment of the Spectator is a theme of advanced art. Eliminating the Spectator by identifying him with the artist's body and enacting on that body the vicissitudes of art and process is an extraordinary movement. (..) experience is made possible but only at the price of alienating it."[73]

In this essay, with his ironical and humorous tone, he expresses very well the separation of the eye from the body that characterizes modernity and how then "modernist space redefines the observer's status".[74] The height of such a separation occurs in the museum space about which he asks: "Do we not, through an odd reversal, as we stand in the gallery space, end up inside the picture, looking out at an opaque picture plane that protects us from a void?"[75] Brian O'Doherty traces here the modernist obsession with the retinal back to Impressionism showing that it "began the harassment of the Spectator inseparable from most advanced art."[76] Focused on retinal

---

[73] *Inside the White Cube: the Ideology of the Gallery Space*, The Lapis Press, San Francisco, 1986, p. 64.
[74] Ibidem, p. 38.
[75] Ibidem, p. 39. He presents the spectator as a "wandering phantom" who "lies down and even crawls as modernism presses on him its final indignities. Plunged into darkness, deprived of perceptual cues, blasted by strobes, he frequently watches his own image chopped up and recycled by a variety of media." Ibidem, pp.40-41.
[76] "Impressionism's first spectators must have had a lot of trouble seeing the pictures. When an attempt was made to verify the subject by going up close, it disappeared. The Spectator was forced to run back and forth to trap bits of content before they evaporated. The picture, no longer a passive object, was issuing instructions. And the Spectator began to utter his first complaints: not only 'What is it supposed to be?' and 'What does it mean?' but 'Where am I supposed to stand?' Problems of deportment are intrinsic to modernism. (…) As we read avant-garde dispatches, it seems that modernism paraded through a vast sensory anguish. For once the object scrutiny becomes active, our senses are on trial. Modernism underlines the fact that "identity" in the twentieth century is centered around perception, on which subject philosophy, physiology, and psychology have also converged major efforts." Ibidem, pp. 60-61. In another text published in *Artforum* in 1976, *Notes on the gallery space*, Brian O'Doherty developed the issues of Monet's paintings in relation with the place of the viewer: "Monet's landscapes often seem to have been noticed on the way from or to the real subject. There is an impression that he is settling for a provisional solution; the very featureless relaxes your eye to look elsewhere. The informal subject matter of

36

ambiguities, the Eye of modernism "has trouble with content, which is the last thing the Eye wants to see (…) the art the Eye is brought to bear on almost exclusively is that which preserves the picture plane—mainstream modernism."[77]

What made Smithson discomforted with the spectator "starring" at his painting as he expresses in his letter to Nancy Holt quoted above was exactly due to this position of the spectator's eye in modernist exhibition spaces. In another letter to Nancy Holt written when he was in Rome, he notes how much the environment of roman churches are reassuring to him in terms of exhibition spaces: "The dark roman churches appeal to me because much of the art can <u>not</u> be defiled by vulgar liberal eyes. The paintings and masses shrouded in deep shadow bring on the peace of the unknown."[78] The "trouble with content" of modernist art, the preponderance of the retinal was Marcel Duchamp's main reproach on it: "The idea for me was, at that time, to bring in gray matter in opposition to the retinal." he says. He wished painting to become again a construction of signs.[79] Smithson's position is very close. In his correspondence with George Lester, he expresses with insistence his discomfort in relation to abstract modernist art: "The show that I send you was born out of an inner crisis that had its roots in the Pre-Renaissance."[80]

2- Excavating the split between the haptic and the visual

In his remarkable *Techniques of the Observer—On Vision and Modernity in the Nineteenth Century*, art historian Jonathan Crary developed this problem of the separation of the eye from the body, of vision from touch, locating the rupture between classical and modern vision at the beginning of the 19th century. He explains

Impressionism is always pointed out, but not that the subject is seen through a casual glance, one not too interested in what it's looking at. What is interesting in Monet is 'looking at' this look—the integument of light, the often preposterous formularization of a perception through a punctate code of color and touch which remains (until near the end) impersonal." Ibidem, pp. 20-22.

[77] Ibidem p. 42.

[78] In Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3832.

[79] He continues as follows: "For me the retinal is a thing that has lasted since Courbet. After Romanticism, with Courbet, every series for a hundred years of painting or plastic art was based on the retinal impression. (…) Everything which represents religious painting, painting since the Renaissance, through the Italian Renaissance, is entirely gray matter, if I dare to use this term when I mean that the idea was to glorify a religion, the catholic religion, the catholic God or something else, in the end, but the painting aspect itself, the retinal aspect of the painting was very secondary… more than secondary… it was the idea that mattered then. And this is what happened, this is what happened to me then in 1912 or 1913 with the idea of wanting to change or at least to rid myself of the retinal heritage of the last 100 years." In an interview with Guy Viau, *To Change Name, simply*, on Canadian Radio Television, on July 17, 1960. On the internet site http://www.toutfait.com/ (The Marcel Duchamp Studies Online Journal)

[80] In Correspondence with George Lester, Archives of American Art, Smithsonian Institution, Washington D.C., reel 5538.

that the model of the *camera obscura* as a metaphor for human vision in the 17th and 18th centuries collapsed to be replaced by a corporeal subjectivity of the observer as the basis of visual perception.[81] He proves his thesis in particular with the study of the optical device of the stereoscope.[82] Looking in the stereoscope, the viewer makes an experience of disjunction: when the eyes travel in the picture, we understand that each one of them does not see exactly the same thing and that vision is not an "optical unity" but the result of a synthesis by the two eyes. Crary explains that the stereoscope make us aware of the "accumulation of differences in the degree of optical convergence".[83] It is one of the devices witnessing the shift of perception that occurred in the beginning of the 19th century with "an eradication of 'the point of view'" of perspective".[84] With perspective, the eyes and the body were one, it enabled the viewer to project herself/himself physically in the space she/he looked at. But while looking at the stereoscope, the eyes make the experience of a disjunction, and the body is forgotten.

Smithson's *Enantiomorphic chambers*, a work he did in 1965, is the most powerful response and critic of this split between vision and touch. Smithson characterizes the work as "a kind of external abstraction of the eyes; it's like you're entering the field of vision. It's like a set of eyes outside my personal set (…) Like a stereopticon kind of situation—artificial eyes—"[85] As a starting point for this sculpture, Smithson took the schema of a simple stereoscope box without mirror lenses in James P.C. Southall's book *Introduction to Physiological Optics* (Fig. 1. 17). The plan indicates

---

[81] Crary explained that he chose the word *observer* instead of *spectator* because: (…) unlike *spectare*, the latin root for "spectator" the root for "observe" does not literally mean "to look at". Spectator also carries specific connotations, especially in the context of the 19th century culture, that I prefer to avoid-namely, of one who is a passive onlooker at a spectacle, as at an art gallery or theatre. In a sense more pertinent to my study, *observare* means "to conform one's action, to comply with", as in observing rules, codes, regulations, and practices. Though obviously one who sees, an observer is more importantly one who sees within a prescribed set of possibilities, one who is embedded in a system of conventions and limitations." In *Techniques of the Observer—on Vision and Modernity in the Nineteenth Century*, MIT Press, 1992, p. 5.

[82] "the stereoscope is one major cultural site on which this breach between tangibility and visuality is singularly evident." Ibidem, p. 19.

[83] "Our eyes never traverse the image in a full apprehension of the three dimensionality of the entire field, but in terms of a localized experience of separate areas. When we look head-on at a photograph or painting our eyes remain at a single angle of convergence, thus endowing the image surface with an optical unity. The reading or scanning of a stereo image, however, is an accumulation of differences in the degree of optical convergence, thereby producing a perceptual effect of a patchwork of different intensities of relief within a single image. Our eyes follow a choppy and erratic path into its depths: it is an assemblage of local zones of three dimensionality, zones imbued with an hallucinatory clarity, but which when taken together never coalesce into a homogeneous field." Ibidem, p.120.

[84] "The relation of observer to image is no longer to an object quantified in relation to a position in space, but rather to two dissimilar images whose position simulates the anatomical structure of the observer's body." Ibidem, p. 128.

[85] He pursues that these artificial eyes deal with "all the different breakdowns within perception. (…) I'm interested in zeroing in on those aspects of mental experience that somehow coincide with the physical world." In I*nterview with Dennis Wheeler, The collected writings*, op. cit., p. 208.

the place for the two pictures to be seen by each eye, and the center of the fused image, where the left and right eye visions converge. On the place destined to the two pictures to be seen in the stereoscope, he draws two sets of concave structures. In the three-dimensional realization of Smithson's drawing, he placed paired sets of mirrors in each structure so that the arrangement of the mirrors in one structure are the 'mirror image' of the arrangement of mirrors in the other structure (Fig. 1. 18). This is the definition of the 'enantiomorph'. Due to the play of reflections and counter-reflections of the mirrors in each structure, the viewer standing between the two structures does not see her/his reflection in the mirrors. She/He is not part of any of the images, however as a counter-effect, she/he gains a physical awareness of her/his position in front of the sculpture (Fig. 1. 19).[86] Smithson's *Enantiomorphic Chambers* are thus radical critics of the omnipotent eye of the modern era, which finds its height in the modernist exhibition space.

3- Modernist critic as obsession

Developing on the social aspect of the separation of the senses, Jonathan Crary notes that in the growing industrial society at the beginning of the 19th century, this rupture also meant an "increasing specification of the senses". He recalls that for Karl Marx, such a separation and specification would be the "conditions for a modernity in which a fullness of human productive powers would be realized."[87] "Marx sounding like a modernist" then remarked Jonathan Crary. In the 1950s, art historian Clement Greenberg based his specificity of the medium in art on this Marxian postulate of the specification of the senses. The development of each art form should be concentrated on the properties of its "pure" medium, each medium having unique characteristics to

---

[86] Smithson's collage *Afterthought: enantiomorphic chambers* shows a photograph of him taken from backward with his head bent forwards and hands in pockets, standing in the middle of the two enantiomorphic structures. The commentary under the collage writes: "stopping of sight not by brutal opposition but by lowering the 'head'"— As notes Ann Reynolds describing the collage: "The body is necessarily 'afterthought' in the stereoscope's design, and sight in Smithson's work comes 'after thought', after the loss of the head. (…) Smithson's pun on 'head' viscerally and erotically extends his simultaneous exposure and 'decapitation' of the body's role in vision" Ann Reynolds, *Robert Smithson: Learning from New jersey and Elsewhere*, MIP Press, 2004, pp. 63-64.

[87] *Techniques of the Observer—on Vision and Modernity in the Nineteenth Century*, op. cit., p. 94 — Marx view favourably the separation and specification of the senses, the problem for him being not such a separation but rather as explains Crary "their estrangement by property relations; vision, for example, had been reduced to the sheer 'sense of having' "Ibidem, p. 94 — He quotes an excerpt that Marx wrote in his *Economic and Philosophic Manuscript* of 1844: "to the eye an object comes to be other than it is to the ear, and the object of the eye is another object than the object of the ear. The specific character of each essential power is precisely its specific essence, and therefore also the specific mode of its objectification." Ibidem.

be brought further. The separation of the visual from the tactile is there brought to extremes as he states in particular in his essay *The New Sculpture*: "The desire for 'purity' works, as I have indicated, to put an ever higher premium on sheer visibility and an ever lower one on the tactile and its associations, which include that of weight as well as of impermeability." [88]

Smithson's *Enantiomorphic Chamber*s act again as a reversal of Greenberg's theories: the eyes do not see anything, but the body exists again, we become aware of it again. In an interview with Ann Reynolds on 19 November, 1991, Nancy Holt recalls how "Bob used to go into polemical dialogue against Greenberg constantly" and that "Greenberg was the one that got him going because his ideas were so restrictive. He constantly talked about Greenberg: it was an obsession."[89] Smithson defended non-sight, marking a refusal of the tyranny of the eye that developed with the split of the senses, while Greenberg's revelation appears as the extreme outcome of this split with his ethereal opticality for the reception of the work of art. Greenberg's thesis on the exclusivity of the visual forgets the corporeity of the viewer. In contrast, the corporeity of the viewer is always a big concern for Smithson, from the figures of the religious paintings to the pulsation of *The Eliminator* on the viewer's body, his works deal with tactility. As he stated later in 1969, "I am for a weighty, ponderous art".[90] Across this period during which he needed to question the visual challenges at stake in religious iconography, Smithson builds an archaeological analysis of western art in order to understand his discomfort in relation with the preponderance of the retinal. He tends to reactivate painting as a network of signs, as it was essentially in classical art and particularly before the illusionistic perspective space of Renaissance.

The Eliminator marks both the outcome as well as the reversal of Smithson's religious paintings. It is a pivotal work, central to his future works. From his organic and empathic paintings that work as signs, he shifts to create a work with light signals: no more empathy, but a pain for the viewer. Red paint as sign for blood is replaced by red light as signal.

---

[88]Clement Greenberg, *The New Sculpture*, in *Art and Culture*, Beacon Press, 1989 (first published in 1961), p. 144.
[89] Ann Reynolds, *op. cit.*, p. 64 and note p. 253. Ann Reynolds quotes further Nancy Holt in the note: "Greenberg became Bob's person he would argue with in his mind, his foil. Greenberg had a very strong presence in the art values on to everything, and we knew quite a few artists whose lives were really changed through his evaluation of their work… what he decided was it. So Bob didn't want to be part of that and wanted to find an escape route away from that. Bob used to go into polemical dialogues against Greenberg constantly."
[90] In *Interview with Patricia Norwell*, in *Recording Conceptual Art*, University of California Press, 2001, p. 131.

PART ONE

CHAPTER 2

HOW TO DEAL WITH TIME? OP ART, PULSATION, SIGNALS:

Nuances of timelessness

> *Neither plenitude nor vacancy. Only a flicker.*
> T.S. Eliot, *Burnt Norton, Four Quartets*

> The Eliminator *is a clock that doesn't keep time, but loses it.*
> Robert Smithson, *The Eliminator*

The repetitive neon flash of *The Eliminator* can be seen, we have proposed in the previous chapter as a parody of the moment of the Greenbergian revelation as well as a parody of the moment of religious revelation that Smithson was referring to in his previous work. Here is put up a timelessness that has, however, nothing anymore to do with either revelation or religious eternity. What is this timelessness now devoid of the religious link?

We will characterize Smithson's timelessness by confronting it with three models: the Op Art that develops in the 1960s, the issue of the pulse as an art form in itself as developed in the studies of Rosalind Krauss, and the indifferent timelessness as it was established by Ad Reinhardt and of which we find a correspondence in *The Shape of Time* by art historian George Kubler. From these models we will see how the problem of the temporality of the work of art is reformulated in the 1960s, and how Smithson comes into play between these different ways of treating time.

I- FRICTIONS BETWEEN OPTICALITY AND TACTILITY: THE PROBLEM OF OP ART IN RELATION WITH THE MODERNIST THEORY OF RETINAL ART AND SMITHSON'S RESPONSE

1- Op Art in relation with the modernist theory

The works categorized as Op Art reveal to be ambiguous in relation to the modernist theory of vision. They were consecrated in the exhibition *The Responsive Eye* that was curated by William Seitz at the MOMA in 1965. What appears from the catalogue is that claiming to pursue Greenberg's thesis on opticality, the works in fact move apart from it. Some of these new works dealt with a visual tactility that sometimes produced violent physiological effects on the viewer. They brought to evidence the contradiction of the modernist theory of vision, pointing this problem: if opticality is "incorporeal and weightless", then how can the viewer's body be so easily forgotten?

Smithson's *The Eliminator* could at first sight be viewed as a work related with Op Art issues. He realized this work in parallel with some paintings figuring bolt-lightning in a comics-imagery style that he submitted to William Seitz for *The Responsive Eye*, with no success. If Op Art was to pursue the modernist theory of vision, how could it be possible, considering Smithson's obsession against Greenberg's theories, that he submitted a work for this exhibition? Could it be a pun on such a trend? What is Smithson's relation to Op Art? What is the main difference between such works and his approach?

In the announcement of the exhibition in 1962, Seitz expresses that his purpose is to present works based on a "primarily visual emphasis" since Impressionism in order to give an awareness of the evolution of recent art and open reflections on the future of such a direction. In spite of the fact that his name is not quoted among the many theoreticians to which the texts of the catalogue refer, we recognize the impact of Clement Greenberg's theory as this excerpt testifies: "This is an art of appearance, not factuality. Like the apparatus of a stage magician these objects do not exist for their true physical form but for their impact on perception."[91]

---

[91] *The Responsive Eye*, The Museum of Modern Art, 1965, p. 41.

The term "perceptual abstraction" that Seitz coined to characterize the works of the new tendency may first look like an extension of Greenberg's theory of opticality.[92] But he then recognizes the essential physical impact of such works by asking: "Can such works that refer to nothing outside themselves, replace with psychic effectiveness the content that has been abandoned? What are the potentialities of a visual art capable of affecting perception so physically and directly? Can an advanced understanding and application of functional images open a new path from retinal excitation to emotions and ideas?"[93]

The insistence on the physical impact of the work on the viewer is here somehow disturbing in relation to the theory of opticality: if perception is physically affected, aren't such works tactile? This was precisely the point on which art historian Rosalind Krauss attacked Op Art in her critique of *The Responsive Eye* entitled *Afterthoughts on Op*. For her these works were first of all tactile: she thus considers the expression "optical painting" to be an erroneous filiation of the modernist concept of opticality.[94] The problem for Krauss was that Op Art, and this is what appeared in the catalogue, was positioning itself officially in the lineage of Greenberg's concept of opticality whereas in practice, the trick on the eyes of the works showed that it was deriving from the *trompe l'œil* tradition, i.e. illusion: a three-dimensional issue dealt with in two dimensions. Illusion is exactly what the modernist theory of medium specificity rejected.

---

[92] He explains that: "The intent of *The Responsive Eye*, surely clear by now, is to dramatize the power of static forms and colors to stimulate dynamic psychological responses. Is this new *modus operandi* a means only or is it an end as well?" Ibidem.

[93] Ibidem, p. 43. About the problem of content, note that in his praise of opticality with abstract painting, Clement Greenberg never expressed as Seitz that "the content had been abandoned." On the contrary, he said that the content was always necessary, only subject matter was not there anymore. See *For a Newer Laocoon*, 1940: "as the first and most important item upon its agenda, the avant-garde saw the necessity of an escape from ideas, which were infecting the arts with the ideological struggles of society. Ideas came to mean subject matter in general. (subject matter as distinguished from content: in the sense that every work of art must have content, but that subject matter is something the artist does or does not have in mind when he is actually at work). "

[94] "the term optical has always been used in the description of painting or sculpture to refer to that mode of presentation which addresses itself solely to one's vision and which in no way elicits sensations that are tactile in kind. Haptic, or tactile, art on the other hand exploits the viewer's sense of touch. Painting which employs the conventions on which illusionism is built, that is of modelling and perspective, to induce in the perceiver the idea that behind the picture-plane lies three-dimensional objects which he could actually feel is thus essentially haptic rather than optic. The whole tradition of *trompe-l'œil* painting rests on the ironing heightening of the intensity of this imagined tactile exploration, heightening at the same time the feeling of duplicity which knowledge of the painting's actual flatness always brings." in Rosalind Krauss, *Afterthoughts on Op*, Art international 9, n5, June 1965, quoted by Pamela Lee in *Bridget Riley's Eye and Body Problem*, in *Chronophobia*, The MIT Press, 2006, pp.178-179. Note that the term "optical paintings", used in the catalogue of *The Responsive Eye*, was coined in 1964 for Julian Stanczak' show *Optical Paintings* at the Martha Jackson gallery, the term *Op Art* was coined by Jon Borzinner in his article reviewing this exhibition, published in *Time magazine* on October 24, 1964.

2- Tactile revelation: Smithson's response

Some viewers of this new "perceptual abstraction" felt the tactility of the works very violently. In the catalogue of *The Responsive Eye*, William Seitz said about artist Bridget Riley's painting *Current* that "the eye seem to be bombarded with pure energy" [95] People having looked at other *hardcore* works of this sort expressed that in looking they experienced physical sensations that could lead sometimes to nausea and fainting. As noted Pamela Lee: "Description of bodily repulse, headaches, and far worse are commonplace in the literature (on Op Art); viewers were reported to pass out in the galleries, a kind of postwar Stendhal syndrome gone violently amok".[96]

What can we say now about the violence of Smithson's *The Eliminator* in 1964*?* May the coarse flashes of neon be understood not only as a critique of the greenbergian revelation but also as a critique of the effect created by some *hardcore* optical paintings? The paintings that Smithson submitted to William Seitz with the hope to have them part of *The Responsive Eye*, figured bolt-lightning in a cartoon-like style without the trace of the brushwork (Fig. 1. 20 and Fig. 1. 21).[97] Like *The Eliminator*, the lightning-bolt of these paintings appear as a parodic reversal of his former works: they figure revelation, the cartoon-like style in the vein of Pop art indicate the cold distance that Smithson now takes from this revelation.[98] Figured, this latter is now reduced to a schematic sign. And as these paintings figure a sign, they can be understood as a pun on Op Art, telling us: *one can hardly obliterate meaning*.

---

[95] In *The Responsive Eye*, op. cit., p. 31.

[96] Pamela Lee, *Bridget Riley's Eye and Body Problem*, in *Chronophobia*, p. 174.

[97] Several of these paintings were then destroyed by Smithson. About two of these paintings named respectively *High Sierra* and *Homage to Carmen Miranda*, art historian Ann Reynolds comments "little in these works saves them from the purely formalist reading, other than their recognizable and somewhat cartoonlike images. The commentary that Smithson adds to these two paintings, and presumably to others, is in the titles. Both give the dry, formal surfaces a popular twist with their references to Hollywood cinema—a particular film and a well-known female film personality" Ann Reynolds, *Learning from New Jersey and Elsewhere*, The MIT Press, 2004, p. 55.

[98] Note that Dan Graham relates that Pop Art was an essential influence for Smithson. See *Interview with Eugenia Tsai*, NYC, October 27, 1988, in *Zeichnungen aus dem Nachlass*, Landschaftsverband Westfallen-Lippe, 1989. We will get back to Smithson's relation with Pop Art in our Chapter 1 Part III.

II- THE PULSE AS ART FORM

1- Flicker works: the flicker film, the neon pulse

In 1966, artist Paul Sharits did a film entitled *Sears Catalogue* in which he juxtaposed photograms of pictures taken from a magazine. When looking at this film, each picture appears and disappears instantaneously. Pictures follow each other so fast that at the end of the film, we can say we have seen pass some elements like faces, shoes, light bulbs, knowing at the same time that many more objects have passed that our eyes could not grasp. Photograms followed each other at a pace below the threshold of perception, making impossible for the eye to record all of the pictures. Physiologically the experience is violent: the speed of the scrolling of the pictures does not provide the necessary time for the mind to synthesize what the eyes see. "Goal: the temporary assassination of the viewers' normative consciousness" expressed Paul Sharits about his subsequent famous flicker film *T,O,U,C,H,I,N,G* that he did the same year. *Sears Catalogue* is not yet what was later called "flicker film". However, it already carries an essential element of the flicker film: the focus on the pulse of film projection. What is a flicker film? A flicker film is structured by recurrent blank frames. This is what distinguishes such a film from other films where heterogeneous photograms follow each other in a rapid succession, such as it is in *Sears Catalogue*. [99] We do not or almost do not grasp the pictures in *Sears Catalogue*, but the pulsation of light in the scroll of the pictures imprints on the retina. *Sears Catalogue* is a kind realization of the iconoscope that Robert Smithson imagined in 1962. One could ask: why did Smithson himself not realize the iconoscope he imagined in *The iconography of desolation*? We may now venture to think that he might have probably considered: *since the "falling" pictures of the iconoscope would anyway not have been completely grasped by the eye, wouldn't it be more radical to have, after all, no pictures at all anymore?* And then another subsequent question would have arisen: *if there are no pictures at all, would it be necessary to still have a film, a celluloid skin?*

After such questions, it seems that we arrive at *The Eliminator*. And at this point we can say that it is a radical cinematic work without pictures nor film. Let us examine this closely.

First of all, let us recall a remark by Regina Cornwell: "as a fundamental principle, flicker is as old as, in fact older than the camera and projector."[100] The work, we said it earlier, consists of an intermittent flickering neon light, reverberated on three sides by mirrors. In the flicker film, this flicker is due to the succession of the photograms in front of the light projector: it is the result of the metric measure of the 24 images per second in front of it. With *The Eliminator*, light is *unveiled*, nude: there is no film-skin. The beat is programmed electronically instead of a metric measurement of photograms.

The motivation of filmmakers that developed flicker film was to produce works that would bring an experience and a conscience of what they considered the essential, structural aspect of the film projection: the pulse created by the succession of the pictures in front of the light projector. This creates a beating of light on the screen at 24 pictures per second. Since *The Eliminator* shares this essential beat of light, we can consider that it is a kind of very primitive cinematic work without any celluloid skin and thus without any screen — a raw cinematic work.

Austrian filmmaker Peter Kubelka underlined that in the cinema, the content of the picture represents only 5% of what is perceived. The remaining 95% are constituted by the structure between the photograms and the articulations that these photograms produce when combining in between each other.[101] With his film *Arnulf Rainer* in

---

[100] Art historian Regina Cornwell developed this distinction in her essay *Paul Sharits: Illusion and Object*, published in the *Artforum* vol. X, No.1 of September 1971: "The flicker film can be described phenomenologically as the short and very rapid succession of recurrent images which flutter or fluctuate in various structures throughout the work. In Kubelka's *Arnulf Rainer* and Tony Conrad's *The Flicker* (1966) it is the structuring of black and white frames, while Sharits's *Ray Gun Virus* is dominated by solid chromatic frames with some black and white. Yet it need not be composed purely of solid chromatic or achromatic frames, as evidenced in Kubelka's black and white silhouette work, *Adebar*, and in *N:O:T:H:I:N:G* and *T,O,U,C,H,I,N,G*, and Sharits's other flicker works in which there are recurrent referential images which animate with the solid chromatic and achromatic frames. While in much of the film work of Robert Breer there are rapid successions of images with some recurrences as in *Recreation* (1956) and *Blazes* (1961), and in much of the work of Stan Brakhage there is also rapidity of movement as in *Mothlight* (1963) and of movement and cutting as in *Dog Star Man* (1961-64), these are to be distinguished from the flicker film. For the brevity of the arrangements of recurrent structures of blank frames with or without referential images creates the quick light flickering punctuations which have become the overt forming or shaping principle of the works known as flicker films."

[101] This is what Stefano Masi relates in *Peter Kubelka, sculpteur du temps* (Peter Kubelka, sculptor of time), in *Peter Kubelka*, ed. by Christian Lebras, Paris Expérimental, 1990, p. 127: "la valeur de ce film démontre l'hypothèse de Kubelka selon laquelle au cinéma le contenu de l'image ne représente que 5%. Les 95% restant sont constitués par la structure entre les photogrammes et les articulations que les photogrammes produisent en se combinant entre eux."

1960[102] the point was to reveal physically in the experience of the film the pulsation created by the succession of the photograms in front of the light projector (Fig. 1. 22).[103]

Arnulf Rainer is based on a rhythmic alternation between light and darkness (transparent and opaque photograms) that Kubelka referred to in terms of day and night, saying that in one second, day becomes night and night becomes day twenty-four times.[104] The flicker of the photograms freezes time in the sense that it goes so fast for the retina, it is so violent that there is no way to feel duration. This impossibility for the mind to synthesize what the eye sees results in timelessness. Kubelka declared that "cinema is not movement. This is the first thing. Cinema is not movement. Cinema is a projection of stills — which means images which do not move — in a very quick rhythm. (…) It can give the illusion of movement. Cinema is the quick projection of light impulses."[105] This "quick projection of light impulses" acts as a freezing of time. Paul Sharits describes well this freezing of time when considering the place of the recurrent pictures sandwiched between the color photograms in his flicker films: " in *N:O:T:H:I:N:G*, action does not happen very fast, but it changes very quickly. In the film, a light bulb needs fifteen minutes to give light whereas in reality, it only takes an instant. It travels at the speed of light. So in this precise case, I extremely slow down the image. In *T,O,U,C,H,I,N,G*, it is the same case of figure. Twelve minutes are required to cut one's tongue whereas it will take in reality only one or two seconds".[106]

Rosalind Krauss acknowledges that "the flicker film was invented to stop time". This freezing of time, she analyzed, is due to the disabling of the viewer's afterimage perceptual mechanism, responsible for the illusion of movement, of fluid succession of photograms: this is what avoids the feelings of duration.[107] She explains that with

---

[102] His film is entitled *Arnulf Rainer*, from the name of his friend the painter who financed it. As Kubelka explained "*Arnulf Rainer* consists of four strips: one composed of completely transparent film leader, then a strip of completely black film, and then two strips of magnetic sound, one completely empty, no signal, and the other continuous sound. The continuous sound is called 'white sound' and it consists of all oscillations." In *Theory of Metrical Film, in Peter Kubelka*, op. cit. , p. 83. Kubelka built the film without any mounting table just by putting the photograms one after another following the rhythm of the score he had written.

[103] Subsequently filmmakers Tony Conrad with *The Flicker* (1966) and Paul Sharits with his four first flicker films *Ray Gun Virus*, *T,O,U,C,H,I,N,G*, *Piece Mandala/End War* and *N:O:T:H:I:N:G*, all of 1966 follow the same approach.

[104] See *Peter Kubelka, sculpteur du temps*, Stefano Masi, in *Peter Kubelka*, op. cit., p. 135.

[105] In *The Theory of Metrical Film*, in *Peter Kubelka*, Paris Expérimental, 1990, pp.61-62.

[106] In an Interview with Gérard Courant, September 1981, on http://www.gerardcourant.com/index.php?t=ecrits&e=149

[107] "the flicker film was invented to stop time, to disable the afterimage's perceptual mechanism by means of which the visual 'persistence' of information contained into one film frame would bleed into the next, creating the

the flicker films, the afterimage mechanism does not disappear. It is impossible since it is a physiological phenomenon, but it takes a completely new turn: instead of enabling the illusion of movement, it now reveals the viewer her/his own corporeity.[108] The afterimage is heightened when we look at a film like *Arnulf Rainer* because in the interstitial spaces of black frames, what we see "is not the material surface of the 'frame', nor the abstract condition of the cinematic 'field', but the bodily production of our nervous system, the rhythmic beat of the neural network's feedback, of its 'retention' and 'protention', as the nerve tissue retains and releases its impressions."[109]

The beat is the repetition of an apparition/extinction, and the shock of this beat puts forward the physical presence of the viewer. The awareness of "the electrical-chemical functioning of his (the viewer's) own nervous system" is an essential element for Paul Sharits with his films.[110] This awareness is the ability to see oneself seeing, what Smithson expressed in his text for *The Eliminator* by saying that the viewer "becomes aware of the emptiness of his own sight or sees through his sight." The repetitive on/off of the pulse disables any connections of data but it gives the viewer a conscience of her/his corporeity as well as a conscience of her/his own ability to see — or not see. This point is an essential effect of the pulse.

Paul Sharits's conception of the flicker as a repetition that slows down action to a point of freezing appears a happy solution if we go back to Robert Smithson's preoccupation with Revelation. Here the frozen instant of the photogram is repeated in flicker. Kubelka explained his essential motivation for the flicker film as the wish to make "an ecstatic time, to take me out of the amorphousness of daily life."[111] This "ecstasy" he explains as a way to get out of the decaying force of time fleeing: "a means to beat the laws of nature, not be slave of nature" and he characterizes his film *Arnulf Rainer* as "the cinematographic ecstasy".[112]

---

illusion of an uninterrupted flow of movement. This stoppage, the reasoning went, would make it possible to look past the illusion and actually 'see' the basic unit of film, the real support of the medium: the single frame." In "Pulse", in *Formless a User's Guide*, Zone Books, New York, 1997, p. 161.

[108] "though the rapid-fire alternation of black and white, or black and image frames, can break the flow of motion, it cannot turn off the afterimage, which is produced by the viewer all the same." Ibidem.

[109] Ibidem.

[110] In his *Statement of Intentions for the Selection Jury of 4th International Experimental Film Competition*

[111] In *The Theory of Metrical Film*, in Peter Kubelka, op.cit., p. 70.

[112] He explains it as follows: "it's a means to beat the laws of nature, not be slave of nature—in English you have this great expression 'to serve time' in prison and that really is what normal life is—you serve time. This cycle of life, being born, youth, age which is so idealized by so many civilizations and philosophers, is rejected by some, and I am one of them. I don't want to die, but I have to. I don't want to age either, but I must serve under it. There is a possibility to get out of all of it even if it is just for my interior reality. I want to cease to be the noble beast

48

His ecstasy is not far from Smithson's Revelation of *The iconography of desolation*. In the flicker film and in Smithson's primitive cinematic work, *The Eliminator*, Revelation becomes the repetition of an appearing/disappearing point, something that is fugitive, unfixable, something, to use an expression by Rosalind Krauss, that is "continually losing what it has found because it has only found what it has already lost."[113] *Arnulf Rainer*, the *flicker film* and *The Eliminator* all deal with timelessness as a physiological shock due to the impossibility for the brain to synthesize the images received by the eye.

The issues of the flicker and sacrifice remain present in Smithson's later work. The film of his masterwork *The Spiral Jetty* opens with the glaring image of the sun with flickering light, the beginning in the red light of the Museum of Natural History is paced with the sound of a breathing machine. In his text *The Spiral Jetty*, Smithson shows that this flicker also creates a timelessness: "As I looked at the site, it reverberated out to the horizon only to suggest an immobile cyclone while flickering light made the entire landscape appear to quake. A dormant earthquake spread into the fluttering stillness, into a spinning sensation without movement. (…) It was as if the mainland oscillated with waves and pulsations, and the lake remained rock still."[114]

The text is strewn with descriptions of the violent perceptual effects of the sun: "the sun poured down its crushing light", or "spiral lightning bolt".[115] Like the light of the flicker films, the sun of the *Spiral Jetty* ill-treats the body, recalling the images of sacrifice in Paul Sharits's *T,O,U,C,H,I,N,G*, : "My eyes became combustion chambers churning orbs of blood blazing by the light of the sun. All was enveloped in a flaming chromosphere. (…) Swirling within the incandescence of solar energy were sprays of blood. My movie would end in sunstroke. Perception was heaving, the stomach turning, I was on a geologic fault that groaned within me. Between heat lightning and heat exhaustion the spiral curled into vaporizations. Rays of glare hit my eyes with the frequency of a Geiger counter. Surely, the storm clouds massing would turn into a rain of blood. Once when I was flying over the lake, its surface seemed to hold all the

---

obeying the laws of nature. I want out, I want other laws, I want ecstasy. (…) with this film (*Arnulf Rainer*) I was after the cinematographic ecstasy." In *The Theory of Metrical Film*, in Peter Kubelka, op.cit., p. 83.

[113] In Rosalind Krauss, *The Im/pulse to see*, in *Vision and Visuality*, ed. Hal Foster, Bay Press and Dia Art Foundation, 1988, p. 62.

[114] In *The Spiral Jetty* (1972), *Writings*, p. 146.

[115] In *The Spiral Jetty* (1972), *Writings*, p. 145 and p. 148.

properties of an unbroken field of raw meat with gristle (foam); no doubt it was due to some freak wind action."[116]

2- The issue of the pulse as form

The study on the flicker films is one element in Rosalind Krauss's wider analysis on the issue of pulse in artworks of the 20th century.[117] Her thesis is that the "beat has the power to decompose and dissolve the very coherence of form on which visuality may be thought to depend. This rhythm turns out to have been the resource of a variety of works that appeared against the background of early twentieth-century modernism in direct contestation of that modernism's ambition to ground the visual arts on a particular notion of the autonomy of vision.[118]

According to Krauss, the pulse was introduced by Marcel Duchamp in the early 1920s with his series of rotary discs, *Precision Optics*.[119] Such a device is a primitive cinema of another kind than that of *The Eliminator*. Duchamp's pulsating objects destabilize "good form". The instability of these rotating discs aspire the viewer's gaze and their constantly dissolving image makes them be inconsistent objects (Fig. 1. 23 to Fig. 1. 25). [120] Rosalind Krauss noted that his gesture was to restore "eye's condition as a bodily organ, available like any other physical zone to the force of erotization."[121] Duchamp turned upside down the long development of western art that, since the beginning of modernity had focused increasingly on the retinal.[122] As Krauss notes, the contestation of this autonomy of the modernist eye manifests itself in a variety of forms during the same years in which Duchamp produces his *Precision Optics*. An

---

[116] Ibidem, p. 148.

[117] Rosalind Krauss developed this analysis in several essays : in the article "Pulse " of *Formless a User's Guide*, that she edited with Yves-Alain Bois, Zone Books, New York, 1997 ; in her essay *the Im/pulse to see*, in *Vision and Visuality*, ed. Hal Foster ; in her essay *Antivision*, October vol. 36, Spring 1986 (the George Bataille issue).

[118] In *The Im/pulse to see*, in *Vision and* Visuality, ed. Hal Foster, p. 51.

[119] The most famous of the *Precision Optics are Rotative demi-sphère* (1925), *Anemic Cinema* (1926) and the *Rotoreliefs* (1935), that he called "kinetic paintings". The *Rotoreliefs* were said to be at the origin of experimental cinema as well as Optical Art that both developed in the 1960s. For example *Rotary Glass Plates* dated 1920 is composed of five painted glass plates that rotate around a metal axis and appear to be a single circle when viewed at a distance of one meter. See Fig. 25.

[120] Duchamp's *Precision Optics* kept famous for their explicitly erotic connotation due to some of the rotating word puns such as, in *Anemic Cinema*, "avez-vous déjà mis la moëlle de l'épée dans le poil de l'aimée?" About the reading of these turning word puns, Marcel Duchamp expressed: —" 'Avez-vous déjà mis la moelle de l'épée dans le poil de l'aimée?' You have to read very slowly, because it is like word puns, you have… (…) 'Nous estimons les ecchymoses des esquimaux aux mots exquis.' It is part of these things that turn with a motor. And here again (…) 'Moustiques domestiques demi-stock pour la cure d'azote sur la Côte d'Azur.' " In an interview with Guy Viau, *To Change Name, simply*, on Canadian Radio Television, on July 17, 1960. On the internet site http://www.toutfait.com/ (the marcel duchamp studies online journal).

[121] In *the Im/pulse to see*, op. cit. p. 60.

[122] "The idea for me was, at that time, to bring in gray matter in opposition to the retinal." Ibidem.

image that particularly resonates is the opening of Buñuel and Dali's surrealist film *Un Chien Andalou* with the image of the incision of an eye, followed as notes Krauss by "images of sexual desire and physical violence" (Fig. 1. 26).[123] In contrast with the space of unconscious reality of this film, a reality that originates in the subjective, the pulse of the precision optics have a mechanical and objective aspect that clearly distinguish Duchamp's approach in his criticism of the retina, defending a type of works that are characterized by a cold intellectual aspect and create a visceral effect.

Following Krauss's study, the pulse is "an alternative to or protest against the claims of modernist opticality to have both abstracted vision and rationalized form."[124] She notes that it is "through the lowest and most vulgar cultural forms that the visual is daily invaded by the pulsatile: the blinking light of neon signs; the 'flip books' through which the visual inert is propelled into the suggestive obscene; the strobe effect of pinball machines and video games — and all this under girded by the insistent beat of rock music surging through cat stereos or leaking voicelessly through portable headsets."[125]

The pulse acts as the counter movement of the advanced modernist opticality whose peak, as stated art historian Clement Greenberg, was to forget the body.[126] Krauss insists on the fact that the pulse is to be considered as a visual form in itself.[127] She says that "the beat or pulse is not understood to be structurally distinct form of vision but to be at work from deep inside it."[128] She refers to it as "figural", referring to Jean-François Lyotard's study in *Discours, Figure*. The Figural is below the "figurative": it implies the unseen, it is based on what Lyotard calls the "matrix", the

---

[123] See *Paul Sharits: Dream Displacement and Other Projects*, exhibition catalogue, Albright-Knox Gallery, Buffalo, New York, 1976, text available on http://mikehoolboom.com/?p=39 — Rosalind Krauss refers to *Un chien andalou* in relation with Paul Sharits's flicker film *Piece Mandala/End War* where frames of an eye being operated as well as frames of a couple in coitus are put in sandwich between color frames. Violence and sex echo to *Un chien andalou*.

[124] In *the Im/pulse to see*, in *Vision and Visuality*, op. cit., p. 62.

[125] In "Pulse", in *Formless a User's Guide*, op. cit., p. 164.

[126] Greenberg's declaration already quoted above: "The human body is no longer postulated as the agent of space in either pictorial or sculptural art; now it is eyesight alone (…) Matter is incorporeal, weightless and exists only optically like a mirage." Clement Greenberg, *The New Sculpture*, in *Art and Culture*, op. cit, p. 143.

[127] She developed this point as follows: " the beat itself, composed of both extinction and repetition, is the form of this 'bad form'. It is the violence lying in wait of form, as it is the form of violence. Within 'high art', form is constructed so as to ward off the violence of this beat, or achieve the permanence of the configuration, its imperviousness to assault. It was to this end that Enlightenment philosophy theorized a distinction between spatial and temporal arts, specifying that these two domains were to be held separate from one another. From the point of view of this classicizing perspective, if the pulse were to enter painting at all, it could only be through the highly controlled and mediated rhythms of formal proportion, so that, as in the Golden Section, geometry would take up and purify the effects of repetition. " In *Formless a User's Guide*, op. cit., p. 164.

[128] She continues as follows: "And from that place, to be a force that is transgressive of those very notions of 'distinctness' upon which a modernist optical logic depends. The beat itself is, in this sense, figural — but of an order of the figure that is far away from the realm of space that can be neatly opposed to the modality of time." In *the Im/pulse to see*, in *Vision and Visuality*, op. cit., p. 63.

unconscious. [129] The on/off on/off is an alternation of seen/unseen, outer/inner, conscious/unconscious, presence/absence. Rosalind Krauss says that it always involves "the constant threat of interruption."[130] By bringing forward the corporeity of the viewer, the pulse as a visual form tend to produce a new kind of timelessness, timeless because it is a repetition of interruptions, cuts, intervals.

In his *Theory of Metrical Film*, Peter Kubelka showed that "It's between frames where cinema speaks." Between the intervals of light frames, alternating consciousness/unconsciousness, presence/absence and so on. Smithson uses the expression "void interval" to characterize the "off" in the pulse of *The Eliminator*. The expression, he signals, is that used by art historian George Kubler in his attempt to characterize what is "actuality". What is the relation between the new timelessness created by the pulse of *The Eliminator* and George Kubler's "void intervals"?

III- ACTUALITY, SIGNALS AND TIMELESSNESS: HOW TO LOOK AT ANOTHER RELATION TO TIME? — SMITHSON, KUBLER, REINHARDT

1- Robert Smithson reads George Kubler

"The intervals between the flashes of neon are 'void intervals' or what George Kubler calls, 'the rupture between past and future'. *The Eliminator* orders negative time as it avoids historical space." writes Smithson.

"void intervals" — art historian George Kubler coins this expression in his famous *The Shape of Time* published in 1962. By the time his essay was published, George Kubler (1912-1996) was teaching Pre-Columbian and Ibero-American art history at Yale University. It is in this University that in 1940 he defended his dissertation on religious architecture in New Mexico, under the supervision of his Professor Henri Focillon. His works in art history were influenced by anthropology, linguistics and as he recognizes also, by cybernetics. As it was published, his book *The Shape of Time* became very popular among artists for the non-chronological approach that he

---

[129] Rosalind Krauss explains it this way: "below the 'seen' order of the image (that is, the object bounded by its contour) and below the 'visible but unseen' order of the Gestalt, which we could call the formal conditions for possibility of visualizing the object, there lies the order of the 'invisible', to which Lyotard gives the name matrix". Ibidem, p. 64.
[130] Ibidem, p. 65.

proposed for the study of art works through time.[131] Smithson refers to Kubler for the first time when quoting the "void intervals". Kubler coins the expression when trying to characterize what is "actuality":

" *Le passé ne sert qu'à connaître l'actualité. Mais l'actualité m'échappe. Qu'est-ce que l'actualité?'* For years this question—the final and capital question of his life—obsessed my teacher Henri Focillon, especially during the black days from 1940 to 1943 when he died in New Haven. The question has been with me ever since, and I am now no closer to the solution of the riddle, unless it be to suggest that the answer is a negation. Actuality is when the lighthouse is dark between flashes: it is the instant between the ticks of the watch: it is a void interval slipping forever through time: the rupture between past and future: the gap at the poles of the revolving magnetic field, infinitesimally small but ultimately real. It is the interchronic pause when nothing is happening. It is the void between events."[132]

Instant, interval, gap or pause: actuality appears as an "empty between", an in-between. Philosopher Vladimir Jankélévitch characterized the instant as the smallest measure of time, preceding the interval and comparing it — by using another image—to a spark as it is "at the same time emergence, apparition and disappearance, what turns off at the same time that it turns on (…) It is what dies at birth (…) faster than a flicker or an eye's wink."[133] The spark is an "object which is not". If it is repeated indefinitely, we get the flicker film or *The Eliminator* which both produce the new kind of timelessness we spoke about. In actuality as "the instant between the ticks of the watch", we recognize the on/off on/off of the pulse.

George Kubler uses the metaphor of the lighthouse, which keeps on "off" in actuality, darkness, not emitting its light signal. The metaphor is not here by chance since the excerpt quoted above is taken in a discussion that George Kubler initiates about

---

[131] Kubler's approach became very important for Smithson. We will develop in details on Kubler's influence on Smithson in our Chapter 4 Part I, studying Smithson's text *The Artist as Site-seer or coded environment*. — Robert Morris wrote his Master's thesis on Brancusi by using the approach of George Kubler.

[132] George Kubler, In *The Shape of Time*, Yale University Press, 1962, pp. 16-17.

[133] In his lecture on anxiety, (l'angoisse) on https://www.youtube.com/watch?v=U38VN_avli8 (from about 19:05 min to 20:51 min): "The instant is the name that one would give to an object which is not an object because after all what is an instant but an interval reduced to its minimum, much shorter than the millionth of a second, which is still a duration, an interval. (…) It is existence reduced to the pure and simple fact of emergence, of apparition, of flash lightning. Thus something cannot happen in the instant because the instant is almost nothing; there is no place in it for that something may happen, it is just what happened and not the place where something happens. One may thus only compare it to the spark which is at the same time emergence, apparition and disappearance, what turns off at the same time that it turns on (…) It is what dies at birth (…) faster than a flicker or an eye's wink."

signals. From a device to locate in space, the lighthouse becomes in Kubler's text a device to locate in time. The lighthouse's signal is not emitted but only perceived in the now of actuality. We have an undetermined distance or duration between the emission of the signal and its reception/perception by what he calls a "relay". As he says: "signals are like kinetic energy stored until the moment of notice when the mass descends along some portion of its path to the center of the gravitational system. One may ask why these old signals are not actual. The nature of a signal is that its message is neither here nor now, but there and then. If it is a signal it is a past action, no longer embraced by the 'now' of present being. The perception of a signal happens 'now', but its impulse and its transmission happened 'then'. In any event, the present instant is the plane upon which the signals of all being are projected. No other plane of duration gathers us up universally into the same instant of becoming." [134]

The discrepancy between the emission of a signal and its perception that describes Kubler is, when considering works such as the flicker film and *The Eliminator*, to be translated into the discrepancy between the feeling of the light pulse on the eyes (reception) and the conscience of that feeling by the mind (a second stage reception we could say). The "void interval" is an "off" between perception and conceptualization.[135] The "on" that comes subsequently when we grasp the signal can be in a millionth of a second or in a few centuries. Thus if time is made of a succession of signals that we perceive first in an "off" and then grasp in an "on", it is a pulsation which is, like the flicker film an oscillation between presence and absence, consciousness and unconsciousness, seen and unseen, inner and outer, and so on in an on/off on/off on/off rhythm. With all of these examples, in Kubler, *The Eliminator* and the flicker film, there is timelessness not only through the repetition of a signal which effects a suspension of consciousness, light signal with the flicker film or *the Eliminator*, but there is a timelessness in the "void" between the release of a signal

---

[134] George Kubler, in *The Shape of Time*, Yale University Press, 1962, p. 17. A few lines down, p. 18, he uses a geographic metaphor to characterize "actuality": "the hazy coast lines of this dark continent of the 'now', where the impress of the future is received by the past." — He then compares the task of the historian to that of the astronomers since both look at objects whose perception takes place in the present while the signal was emitted long ago: "Knowing the past is as astonishing a performance as knowing the stars. Astronomers look only at old light. There is no other light for them to look at. The old light of dead or distant stars was emitted long ago and it reaches us only in the present. Many historical events, like astronomical bodies, also *occur* long before they *appear*, such as secret treaties, aide-mémoires, or important works of art made for ruling personages. The physical substance of these documents often reaches qualified observers only centuries or millennia after the event. Hence astronomers and historians have this in common: both are concerned with appearances noted in the present but occurring in the past." ibidem p. 18.
[135] The flicker film and *The Eliminator* can be seen as other metaphors of what actuality is: information goes too fast and events are too close to enable the mind to grasp any meaning, the viewer just receives and feels.

54

and its reception — whatever the duration of this void is: short or long. What makes timelessness is the absence of consciousness.[136]

2- Indifferent timelessness into abstract art

Timeless — from 1953 on, Ad Reinhardt brought a new approach of the term in developing his black paintings series consisting on the repetition of a standard square format and variation on a grid of dark colors (black, red, blue). He describes the black painting in a famous long litany in which in particular he says that it is "timeless, spaceless, changeless, relationless, disinterested painting".[137] The description appears as a negation of all the traditional modalities of western painting, keeping of it only the canvas and the reference to the Vitruvian Man due to the dimensions of the canvas, a reference that he uses to turn it, reinforcing radically his gesture. Indeed, with his paintings man cannot find his place as he is supposed to find it in the space made for human size, of which the Vitruvian Man is the symbol, a symbol linked with illusionistic perspective. It is not possible to project oneself in such a negative space.[138] Ad Reinhardt considered what he called his "imageless icons" as the "ultimate" paintings: they represent "the end of the western tradition and the beginning of a new mode of perception".[139] Reinhardt's extraordinary knowledge of civilization older than ours gave him an awareness of "how little change despite outward appearance".[140] This is because of this long view on history that he could introduce an indifferent timelessness into painting with his work consisting of

---

[136] In the development of his site-nonsite dialectic from 1968 on, Smithson refers to these unconscious moments as "low level perception" or "scattering", borrowing the terms used by philosopher Anton Ehrenzweig in his *The Hidden Order of Art* of 1961. It is another kind of "void interval". This point will be further developed in the second part of the dissertation.

[137] In *Art as Art, The Selected Writings of Ad Reinhardt*, edited by Barbara Rose, University of California Press, 1975, p. 83. Five feet = 152, 4 cm. Here is the whole descriptions: "a square (neutral, shapeless) canvas, five feet wide, five feet high, as high as a man, as wide as a man's outstretched arms (not large, not small, sizeless), trisected (no composition), one horizontal form negating one vertical form (formless, no top, no bottom, directionless), three (more or less) dark (lightless) no-contrasting (colorless) colors, brushwork brushed out to remove brushwork, a matte, flat, free-hand painted surface (glossless, textureless, non-linear, no hard edge, no soft edge) which does not reflect its surroundings—a pure, abstract, non-objective, timeless, spaceless, changeless, relationless, disinterested painting—an object that is self-conscious (no unconsciousness) ideal, transcendent, aware of no thing but art (absolutely no anti-art)." (1961)

[138] Reinhardt does use the reference also to indicate that his painting is a space with which one confronts, dialogues, a responsive space. This is particularly visible in his cartoons when he makes his humorous statements on painting. For example in his cartoon *Abstract Art*: "an abstract painting will react to you if you react to it. You get from it what you bring to it. It will meet you half way but no further. It is alive if you are. It represents something and so do you. YOU, SIR, ARE A SPACE, TOO." See Fig. 1. 27.

[139] Barbara Rose's expression in the introduction to Ad Reinhard's essays on his Black Paintings, in *Art as Art, The Selected Writings of Ad Reinhardt*, edited by Barbara Rose, University of California Press, 1975, p. 81.

[140] Barbara Rose's expression in her introduction to Ad Reinhard's writings, ibidem, p. XV.

repetitions of a same standard format of painting and geometrical variations on a grid with the same colors in an infinite series (Fig. 1. 28).[141]

In parallel with Reinhardt's black paintings that are the result of a refusal of the linearity of history, George Kubler's theory about signals and relays in sequences of forms in 1962 represented a big shift from the traditional approach of art history based on a succession of styles in a chronology.[142] What Kubler calls a "sequence of forms" is a succession of forms (art works) in time all grounded on a same problem. In this sequence, each new work brings a new solution to the problem. As he expresses: "the problem disclosed by any sequence of artifacts may be regarded as its mental form, and the linked solutions as its class of being. The entity composed by the problem and its solutions constitutes a form-class."[143]

Thinking in terms of sequences that constitute each the long transformation of a problem is an alternative approach to the traditional linear chronological study of events and artworks that Kubler preferred to call simply "things".[144] A receiver can grasp a signal that was released centuries ago or a few seconds ago, and give a new impulse to it. We do not have the issue of chronology anymore. There is timelessness thus in the sense that the traditional linear relation between things and events is abolished. Timelessness now takes an hazardous aspect.

Kubler's essay revealed important for the artists of the new generation to turn away from the formalism of the modernist critic.[145] Reinhardt's introduction of an

---

[141] Indifferent: Ad Reinhardt's repetition and variation of a painting with the same colors and same format does not refer to any extraneous subject matter. There is no empathy as in Smithson's religious paintings, no expressionist brushstroke anymore. In a way, it is Reinhardt (more than Newman, both "remove" the brushstroke) who is the precursor of the crystalline works developed by Smithson and his fellow artists of the new generation in the 1960s. The indifference of Reinhardt's paintings is also that they only deal about themselves, they are autonomous, they do not care about what surrounds them. "Work of art, power to remain uniquely itself." says Reinhardt. The painting "will react to you if you react to it." But it will stay indifferent to you if you are indifferent to it. Abstract and black, it will do without human presence.

[142] Ad Reinhardt was very taken by George Kubler's *The Shape of Time* published in 1962. In 1966 he published in *Art News* a review of the book, entitled *Art vs. History*. There he wrote: "what every artist over, or under, fifty knows, is that there is something wrong with the way art history has been taught and written for over thirty years in and out of university-academies of art. (…) what is there for artists in art historian George Kubler's book *The Shape of Time*, which has been called a 'manifesto' and described as having 'something of the quality of a work of art' itself and which is now out in paperback?" in *Art as Art, The Selected Writings of Ad Reinhardt*, edited by Barbara Rose, University of California Press, 1975, pp. 224-225. — He wished to have his painting disconnected from issues of style or genre. To use Kubler's terms about signals and relays, Reinhardt caught some old signals in Chinese paintings, Islamic art that he combined with western signals to deform/transform completely these signals. He tended to reactivate and actualize some ancient and archaic elements from various civilizations, thinking them in terms of painting. *Ultimate paintings*, yes, because they give an end to the issue of style such as it was approached by western art history.

[143] George Kubler, In *The Shape of Time*, Yale University Press, 1962-1970 (sixth printing), p. 33.

[144] The three first chapters of *The Shape of time* are entitled respectively *The History of Things*, *The Classing of Things*, *The Propagation of Things*.

[145] Presenting the general approach of his book, Kubler writes in the introduction: "The purpose of these pages is to draw attention on the morphological problems of duration in series and sequences. These problems are

indifferent timelessness into abstract art was essential to them, and he recognized their work, inviting Robert Smithson and Robert Morris to help him organize the *10* show at the Dwan Gallery in 1966. Smithson remembers that he met Ad Reinhardt around the time he made *The Eliminator*, when shifting toward crystalline structures: "I met Ad Reinhardt in 1965. Well, actually in 1963-64. I was doing these plastic paintings, these crystalline paintings and I started to get more into the serial structures that I showed at Dwan in 1966. Ad Reinhardt asked me along with Robert Morris to help organize a show at Dwan – the *10* show. (…) Also around that time I had a lot of dialogues with Sol Lewitt and Donald Judd. A lot of things began to pull together at that time."[146] Later in 1965, he met Dan Flavin. This encounter proved important as both pursue the indifference introduced by Ad Reinhardt, focusing in different ways on the links between leftovers of religion and technological positivism.

---

independently of meaning and image. They are problems that have gone unworked for more than forty years, since the time when students turned away from 'mere formalism' to the historical reconstruction of symbolic complexes." George Kubler, In *The Shape of Time*, Yale University Press, 1962-1970 (sixth printing), p.xiii. Reinhardt's timelessness tends to be effectively "independent of meaning and image", the works of the artists of the new generation influenced by him too.

[146] In *Interview with Paul Cummings*, Archives of American Art, Smithsonian Institution, Washington D.C.

PART ONE

CHAPTER 3

LIGHT AND CRYSTAL: DAN FLAVIN AND ROBERT SMITHSON

I did show a light piece with mirrors, The Eliminator, 1964, my only light piece. I showed it in an exhibition called 'Current Art' where I met Dan Flavin. Dan was very friendly with Donald Judd. After that show I remember Dan Flavin came over here and rapped all night. And one thing led to another.
Robert Smithson, *Interview with Paul Cummings*[147]

The elegance here, the elongation and exaggeration combine with a pseudo religiosity that escapes being Gothic because of its utter coldness and lack of detail. Rather it is a disquiet of mind that we gather, not fervor. (…) Flavin's tubes are a far cry from the scientism of artists who use phased light in a very serious way. Their use of light as motion is purposeful. Flavin's light pulses and flows. It doesn't know where it is going. He never attempts to compete with science. His works have a hidden intellectuality too diverse and subtle to be found in experimental laboratories or scientific workshops.
Peter Hutchinson, *Mannerism in the Abstract*, 1966[148]

I'm trying to achieve a sublime nausea by using the debris of science and making it superstitious. Religion is getting so rational that I moved into science because it seems to be the only thing left that's superstitious. (…) All of this is a metamorphosis from religious iconography which I found a rather atrophied realm.
Robert Smithson, *Interview with Paul Cummings*[149]

---

[147] Robert Smithson, *Interview with Paul Cummings*, Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, Washington D.C.
[148] Peter Hutchinson, *Mannerism in the Abstract* (1966), in *Dissolving Clouds: Writings of Peter Hutchinson*, Provincetown Arts Press, 1994, p. 31.
[149] *Interview with Paul Cummings*, op. cit.

Robert Smithson met Dan Flavin in 1965 in the occasion of the exhibition *Current Art* at the ICA of Philadelphia. A year later, his article *Entropy and the new Monuments* was published in *Artforum* (June 1966*)*. In this article he analyzes Dan Flavin's fluorescent light works, relating them to the issue of entropy. At the time they met, both were investigating more or less recent industrial and technological materials in art. Flavin had a two years practice with fluorescent light *situations*, having started to investigate the possibilities of fluorescent light tubes as exclusive materials in his work since his *diagonal of May 25, 1963 (to Constantin Brancusi)* (Fig. 1. 29). In 1963, Smithson was developing the possibilities of plastic in his own work (Fig. 1. 30). Their paths had another point in common: the questioning of religious art. By 1963, Smithson just ended a period during which he investigated stubbornly religious themes in his paintings and had turned to an interest in plastic and crystalline materials. Flavin's education was highly loaded with religion as his father had destined him for the seminary, a destiny from which he escapes at the age of 18, to "turn toward art" as he states. All of Flavin's light works, from his first works using light bulbs in 1961 clearly tend to empty light from the religious reference, acting as reversals of the symbolism of light as a religious sign. Like Hutchinson, Smithson appreciates Flavin's "intellectual" use of light. Flavin's choice of fluorescent light tubes is the result of a consideration about our relation to such objects: a lighting technology commonly used in shops since the 1930s, which improved especially after the Second World War and as a consequence was then made available to individuals. Flavin was not interested in "technology for technology's sake", a use of technology lacking any awareness of what the materials are or where they come from. What is light without the highly loaded symbolism of immaterial, spiritual and sacred that it carries since millennia? What is light merely as material? Smithson understands very well that considering light as material implies the revision of the relationships between materiality and immateriality on which the western civilization is based, in other words revising the symbolic immateriality with which light is most commonly related. This is what he makes when in his article *Entropy and the new monuments*, he links Flavin's work with the issue of entropy, i.e. an irreversible decrease of energy in matter. Entropy is an essential issue in communication theories developing at the time.

We will see how his analysis of Flavin's work from the consideration of entropy enables him to develop an approach to light both as a material that degrades and as a communication material. We will then see how the reading he makes of Flavin's work enables him to develop the guideline of his own work.

I- FROM ICONS TO MONUMENTS OR "FLUORESCENT LIGHT AS IMAGE" TO "IMAGE-OBJECT"

1- From profane icons to situations

From *the diagonal of May 25, 1963,* that he dedicated to Constantin Brancusi in homage to the *Endless column*.[150], Flavin developed his work with fluorescent standard light tubes in an always more sophisticated way. What he preferred to call "situations" or "proposals" instead of "works of art" or "environments" are based on the encasement of light as a flowing energy.[151] Light is a primary signal that travels from one point to another at the speed of 299 792 458 meter per second in the air, yet fluorescent tubes or light bulbs are glass sealed objects. Electric light is artificial energy enclosed in an object. It is partly on this dialectic that Dan Flavin's fluorescent light proposals are based. He explained that such works were of a "limited light" not only because the light is enclosed in an object but because it has a limited life, depending on the time of consumption of the gas enclosed in the fluorescent tubes. This "limited light", we will see, is close to Smithson's approach at the time, when he was tending in his works and writings to empty the religious symbols.

[150] As says Flavin, this work is a declaration: "I took up a recent diagram and declared 'the diagonal of personal ecstasy' (*the diagonal of May 25, 1963*), a common eight foot strip of fluorescent light in any commercially available color. At first, I chose gold." In *in daylight or cool white*, *Artforum*, December 1965. In the same text, he explains his dedication to Brancusi as follows: "It occurred to me then to compare the new 'diagonal' with Constantin Brancusi's past masterpiece, 'the endless column.' That 'column' was a regular formal consequence of seemingly numerous similar wood wedge-cut segments surmounting one another—a hand hewn sculpture (at its inception). 'The diagonal' in its overt formal simplicity was only a dimensional or distended luminous line in a standard industrial device. Both structures had a uniform elementary visual nature. But they were intended to excel their obvious visible limitations of length and their apparent lack of expressiveness—visually—spiritually. 'The endless column' had evident overtones returning to distant symbols. It was like some archaic mythologic totem which had continued to grow, surging skyward. 'The diagonal', on the other hand, in the possible extent of its dissemination as a common strip of light or a shimmering slice across anybody's wall, had the potential for becoming a modern technological fetish; but, who could be sure how it would be understood?"

[151] Flavin insisted on that point in various occurrences. In 1967 in his essay *Some other comments, more pages on a spleenish journal, Artforum* December 1967: "I prefer the term 'proposal' and endeavour to use it accurately. I know no 'work' as my art." Republished in the catalogue of the exhibition *Dan Flavin: The Architecture of Light*, Deutsche Guggenheim Berlin, 1999, p. 70. In the same essay in 1967: ' … I do not like the term "environment" associated with my proposal. It seems to me to imply living conditions and perhaps an invitation to comfortable residence. Such usage would deny a sense of direct and visual artifice (in the same sense that to confront vibrating fluorescent light for some time ought to be disturbing for most participants.)' Ibidem, p. 85. — In 1989: "And what I propose is not at all environmental. It avoids inhabitability. This proposal is a temporal, factual, mediumistic artifice for existence—no more, no less." Ibidem, p. 87.

Flavin uses the medium that is commonly used only to make things visible and about which we do not care for in itself. This is what noticed Marshall McLuhan saying that it is "pure information. It is a medium without a message, as it were, unless it is used to spell out some verbal ad or name. (…) The electric light escapes attention as a communication medium just because it has no 'content.' "[152] "Pure information", electric light however keeps in some cases its ancient symbolic load: today its sacred meaning is found, suggests McLuhan in the form of billboards and signs.

From a transparent object whose physical materiality we are not careful about, the fluorescent tubes become opaque and static from the moment that they are used for a situation. The fact that Flavin decided to use standard fluorescent tubes that would show their coarse fixture system is significant to give us an awareness of the materiality of such light. This insistence on the materiality of the situations made of fluorescent light tubes implies a rejection of light's religious symbolism. "My fluorescent tubes never 'burn out' desiring a god." he expressed in 1967, reacting to a text by critic Elizabeth Baker who linked his situations with the transcendental.[153] At the opposite of Baker's view, artist Mel Bochner understood very well how Flavin's approach could not be transcendental when writing: "Flavin does not use light. He abuses light. The light is almost secondary in an awareness of the objects. Of course the fascination resulting from the gaseous fluorescent glow is undeniable. But any attempt to posit the objects with a transcendent nature is disarmed by the immediacy of their presence. They are themselves—which is enough and significant."[154] Significant particularly is the situation *the nominal three (to William of Ockham)* of 1963 (Fig. 1. 31), in reference to Ockham's *lex parsimoniae* that Flavin translates with his situations: "principles (entities) should not be multiplied unnecessarily".[155] There is no way to see the existence of God through the materiality of his fluorescent light tubes.

---

[152] Marshall McLuhan, *Understanding Media: The Extensions of Man*, The MIT Press, 1964-1994, pp. 8-9. — What McLuhan meant at the time when saying that "the content of any medium is always another medium" is that we always look at a new medium with what we know of an older medium, thus we always look at it with bias.

[153] In *Some other comments, more pages on a spleenish journal, Artforum* December 1967, *Cat. Exh. Dan Flavin: The Architecture of Light*, op. cit., p.70.

[154] In his review of the exhibition *Art in Process-Structures* at the Finch College Museum, NY where Flavin's *diagonal of May 25, 1963* was presented, published in *Arts Magazine,* September-October 1966, republished in Mel Bochner, *Solar system & rest rooms: writings and interviews 1965-2007*, The MIT Press, 2007, p. 38.

[155] *Entia non multiplicanda praetor necessitate*: the English philosopher and theologian of the 14th century William of Ockham praised knowledge by experience of what is particular against the doctrine of the universals that he criticized for the fact that they were abstractions from what exists physically, thus having no extra-mental existence. His principle, Ockham's razor (*lex parsimoniae*) assumes parsimony and economy. Flavin quotes Ockham in *some remarks… excepts from a spleenish journal, Artforum* (Los Angeles) no. 4, December 1966, quoted in *Cat. Exh. Dan Flavin: The Architecture of Light*, op. cit., p. 63.

Before he chose the fluorescent tube as exclusive modular element for his situations, Flavin first developed works composed of various materials in which he introduced electric light in 1961 (fluorescent tubes or light bulbs). He called these works "icons". Some were composed of paintings on top of which he would place a light bulb or a fluorescent tube.[156] The use of the word "icon" to characterize such works is more than simply ironical in relation with religious iconography. As he expresses in his journal in 1962, his wish was to empty the religious icons from their sacred signification, willing to keep only their actual presence freed from any sacred signified: their aura. He relates how fascinated he was by the "physical feeling" emanating from an icon of the school of Novgorod and how he wanted to keep only this feeling for his own "dumb icons" that would "bring a limited light." [157] This "physical feeling" reminds us of the "pure feeling" that Malevich was claiming with his *Black Square on White Background*, which was shown in the exhibition *0,10, the last futurist exhibition* in 1915, where, like Vladimir Tatlin's *Corner relief*, it was placed in the corner of a room, precisely where the religious icons were placed in traditional Russian homes (Fig. 1. 36).[158] As Malevich and Tatlin "deposited" the sacred figures from the icons, many of Flavin's proposals with fluorescent tubes stand in the corner of rooms, thus pursuing their gestures (Fig. 1. 37 and Fig. 1. 38).[159] However, in contrast with the utopic yearnings of Malevich and Tatlin, whose projects kept often technically unrealizable at the time, Flavin's work keeps in parsimony with its "ready-made" materials.[160] He takes up for his own work Tatlin's

---

[156] Like *icon I (the heart)*, *to the light of Sean McGovern which blesses everyone*, 1961-62 (Fig. 1. 32); *icon II (the mystery) (to John Reeves)*, 1961 (Fig. 1. 33); *icon V (Coran's Broadway Flesh)* (Fig. 1. 34). Others were composed of manufactured or junk objects *(Roses, 1962; East New York Shine, 1962)* (Fig. 1. 35).

[157] "last week in the Metropolitan, I saw a large icon from the school of Novgorod. I smiled when I recognized it. It had more than its painting. There was a physical feeling in the panel. Its recurving warp bore a history. This icon has the magical presiding presence which I have tried to realize in my own icons. But my icons differ from a Byzantine Christ held in majesty; they are dumb—anonymous and inglorious. They are as mute and undistinguished as the run of our architecture. My icons do not raise up the blessed saviour in elaborate cathedrals. They are constructed concentrations celebrating barren rooms. They bring a limited light."In '...*in daylight or cool white'*. *An autobiographical sketch, Artforum* (Los Angeles) no. 4, December 1965, republished in Exh. Cat. *Dan Flavin: The Architecture of Light*, op. cit., p. 62.

[158] Tatlin began his career as an icon painter in Moscow, his first *Corner counter-relief* in the corner of a room dates back to 1914.

[159] In 1969 Flavin starts his long series of monuments that he dedicates to the memory of V. Tatlin, recalling the latter's "incomplete experience" of the project of *Monument to the Third International* (1920) (Fig. 38 to 40). About his relation to the Russian avant-garde, he expressed in 1965: "My joy is to try to build from the 'incomplete' experience as I see fit." Quoted in Exh. Cat. . *Dan Flavin: The Architecture of Light*, op. cit., p. 68.

[160] The religious projection was replaced with Malevich and Tatlin by another projection also going forward. In her essay on the Russian avant-garde, Camilla Gray shows that their plastic desires were far beyond their technical means, referring to Tatlin and Malevich's yearnings as a "prophecy of the rocket age": "It is typical- and the tragedy – of these artists that their ideas were far beyond their technical capacity. That Tatlin should have devoted the last thirty years of his life to the design of a glider – which never left the ground – and that Malevich should

watchword "real materials in real space", now without the "prophecy of the rocket age" (Fig. 1. 39).[161]

Flavin's motivation to eject the sacred reference out of the religious icon reminds us of Robert Smithson's own dealing with the religious between 1960-1962. During that period, Smithson was painting what he himself called his "*Ikons*", paintings that questioned the religious imagery.[162] Flavin presented his "profane" icons for the first time in 1961 on the occasion of his personal exhibition at the Judson Gallery in New York, the same year Smithson was showing his own *Ikons*, explicitly religious, at the George Lester gallery in Rome.[163]

The "limited light" of Flavin's icons appears first as the opposite of the eternal lamps that shine in religious institutions and signify the eternal presence of God. The light of such lamps is supposed to be constantly at work, even if the electric light bulbs of the time degrade and die — which will, for an instant or a longer time span, interrupt materially the symbolic eternity. In contrast with the symbolism of such lamps, the material degradation of gas enclosed in the standard fluorescent light tubes is essential to Flavin's approach with light. He always insists on the physical and immanent aspect of his work versus any transcendental association. An important element that makes such light be limited is that it is to be switched on and off.

2- Intermittent monuments

In his essay *Entropy and the New Monuments*, Smithson deals with Flavin's

---

have designed Planits for living in is surely a prophecy of the rocket age. " Camilla Gray, *The Great Experiment: Russian Art 1863-1922*, Thames and Hudson, 1962-1986, p.180.

[161] Donald Judd, a close friend of Dan Flavin entitled one of his *specific objects* "real materials existing in real space" in 1965.

[162] He finally also turned out the religious with the "filmic fall" of Revelation that we saw in his text *The iconography of desolation*. We saw in our first chapter how *The Eliminator* in 1964 is to be understood as an ironical reversal of the instant religious revelation as the flashing light of the neon gets repeated monotonously and indefinitely. Note that another artist who also realizes what we can call a "deposition" of religious signs is Walter De Maria (1935-2013). From 1965 on, a little later than Smithson and Flavin, he realizes large aluminum sculptures taking the shapes of religious symbols such as the Christian cross (Cross, 1965-66 10.2 x 106.7 x 55.9 cm and the Star of David (Star 1972, 10.2 x 111.8 x 127 cm) and the swastika (Museum Piece, 1966, 10.2 × 91.5 × 91.5 cm.) He transforms them into ball games. The symbolic value of these signs is emptied. Also from 1965 on, Paul Thek starts his series of *Technological reliquaries*, sculptures made of fluorescent plexiglas structures in which he inserts pieces mimicking flesh (composed of different materials and wax). He sought to inject pathos into minimalist sculpture. His gesture may appear as the reverse of that of De Maria, Smithson and Flavin whose aims are to make religious symbols collapse. Among the approaches of these artists, we see clearly how the issue of the religious is at work among American artists during this period.

[163] In contrast with Smithson whose family was of catholic origin (his mother) but not particularly church-goer, Flavin had bathed in the catholic religion since his childhood and he escaped from the seminary life to which he was destined: "I had to flee the seminary for the terrible profanity of life outside its Gothic walls which, in large measure, I had never experienced. At eighteen, I turned toward art." In " *'…in daylight or cool white': an autobiographical sketch, Artforum*, December 1965.

"monuments", referring to his *monument 7 for V. Tatlin*. From 1964 on, Flavin started a series of thirty-nine "monuments" dedicated to constructivist artist and architect Vladimir Tatlin, on which he worked until 1982.[164] These "monuments" were a humorous and ironic homage to Tatlin's project of *Monument for the Third International* (1920).[165] As Flavin expresses it: "I always use 'monuments' in quote to emphasize the ironic humor of temporary monuments. These 'monuments' only survive as long as the light system is useful (2100 hours)." [166] In contrast with traditional monuments, Flavin's monuments are conceived to last only a short time span and furthermore they exist as monuments when their light is turned on.[167] We can say that they are intermittent monuments functional only during the opening hours of exhibitions, and monument/no-monuments following the switching on and off of electricity. Flavin considers with sharpness the issue of art presented in museums. In his "manifesto" poem of October 2, 1961, he reveals all the challenges of his practice with fluorescent light tubes:

fluorescent

    poles
   shimmer
  shiver
  flick
   out

   dim

  monuments

  of
   on
    and
    off

    art

---

[164] The *monuments to V. Tatlin* mark Flavin's first occurrence of the term "monument" in his work. In the previous works and in many subsequent works, he makes dedications, simply inserting the name of the person to whom the work is dedicated. As precises Frances Colpitt in her text on the *monument on the survival of Mrs. Reppin*: "most of Flavin's works are dedicated to friends and individuals whose assistance and influence he appreciated, but the designation "monument" appears to have been reserved for special acknowledgments." In *Dan Flavin, The Architecture of Light*, op.cit., p. 22.

[165] This project kept unrealized, it would have been a huge building in spiral meant to house the offices and propaganda information services of the soviet regime.

166 In Michael Govan, *greens crossing greens*, cat. *Dan Flavin: The Architecture of Light*, op. cit., p. 27. Following the principle for most titles of his works, 'monument' writes in lowercase letters.

[167] In spite of Flavin's declaration, the burnt fluorescent tubes of the structures were renewed during his life time. Now that these standard fluorescent tubes cannot be found anymore in the market, institutions and museums strive to find solutions.

In this poem are expressed two major points that Flavin develops with his subsequent works: the "on and off art" principle, due to the switch of light, and the "dim monuments". These two points turn his situations finally into anti-monuments. Smithson calls Flavin's monuments "instant monuments": they suddenly appear when the light is turned on and then disappear when it is turned off.[168] As he developed his practice with fluorescent light tubes, his consideration about the status of his works as "intermittent" evolved. In a letter to Elisabeth Chase Geissbahler, dated February 12-13, 1966, he expresses that at the beginning of his practice, he "was taken with easy, almost exclusive recognition of fluorescent light as image." Whereas in 1966, "the physical fact of the tube as object in place prevailed whether switched on or off. (in spite of my emphasis here on the actuality of fluorescent light, I still feel that the composite term 'image-object' best describes my use of the medium)".[169] Thus between 1963 and 1966 the awareness of the materiality of the fixtures had taken importance.[170] Flavin's works deal with a duality between the light as flowing energy and the structure of the tube as static material. This flowing light may appear eternal — this is a symbolic meaning — but the fixtures and the on/off switch bring back awareness on the materiality of the light tubes as objects, thus Flavin's term "image-object". In the "fluorescent light as image" of the beginning, we see the explicit reference to the two-dimensional icon whereas the term "image-object" opens to something new.

3- Dim Monuments

Flavin's scale for his "monuments" is taller than the height of a human body but nothing compared with Tatlin's megalomaniac project of *Monument for the Third*

---

[168] It is possible that coining the expression, Smithson refers to H. G. Wells' s *The Time Machine*, where in the introduction the protagonists speculate on the existence of an "instantaneous cube" that can exist only mentally. However, Flavin's "instant monuments", in contrast with this instantaneous mental cube of *The Time Machine*, have a material intermittent existence as monuments: " 'You know of course that a mathematical line, a line of thickness NIL, has no real existence. They taught you that? Neither has a mathematical plane. These things are mere abstractions. (…) Nor, having only length, breadth, and thickness, can a cube have a real existence.' / 'There I object,' said Filby. / 'Of course a solid body may exist. All real things—'/ 'So most people think. But wait a moment. Can an INSTANTANEOUS cube exist?'/ 'Don't follow you,' said Filby. / 'Can a cube that does not last for any time at all, have a real existence?' " H.G. Wells, *The Time Machine*, on http://archive.org/details/timemacliineinvenOOwell

[169] In Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, Washington D.C., reel 3834.

[170] His friend Sol LeWitt had jokingly said about his work: "I like everything about Dan's work except the light." in Mel Bochner, *Solar system & rest rooms, writings and interviews 1965-2007*, The MIT Press, 2007, p. 25.

International: Flavin's *monument 1* is 243,8 cm high for a width of 58,7 cm and a thickness of 10,8 cm (Fig. 1. 40 and 1. 41).[171] Dim, not only because they are inactive as the light is turned off, but dim also as the opposite of "projective" or anticipatory, dim as closer to the actual material condition of Man. Their light is perishable as is the human body. The monuments exist as long as there is gas in the fluorescent tubes. When the light is turned on, they are commemorative, dedicated to the memory of individuals. In this sense, Flavin keeps close to the etymology of the word *monument:* from the latin verb *monere*, "to remember oneself", an individual, not the abstraction of religious monuments.[172] Because of the on/off switch of electric light with which they are built, they bring an intermittent memory of the human beings for which they are dedicated. Thus intermittent monuments are at the opposite of the religious concept of eternal light.

II- CRYSTALS AND SPACE WITHOUT SHADE: NEW SPATIO-TEMPORAL RELATIONS

1- Crystals in the electric age

When in *Entropy and the new monuments* Smithson speaks of Flavin's monuments as "instant monuments", he presents them as the vectors of a dislocation of our spatio-temporal landmarks. In front of them, "Rather than saying, 'What time is it?' we should say, 'Where is the time?' 'Where is Flavin's Monument?' The objective present at time seems missing."[173] This description of Flavin's monuments echoes Marshall McLuhan's "compression of the globe" due to electric speed. The latter showed that with the development of electricity, everything was becoming instantaneous due to the speed of communications: "our world has become

---

[171] Each monument is built in a different arrangement of fluorescent tubes, some of the monuments' shapes make us think of a building, others of a rocket, thus recalling Tatlin's utopic intention.

[172] Following the etymology of the term, a monument is supposed to bring back to memory what has been and is not anymore: whether the memory of someone/some people who lived or the memory of an event that happened. The function of the monument is to make a memory last the longest time span possible and this explains why it is built with sustainable materials. However nothing specifies that this memory should be eternal. Religious monuments are particular in the sense that they remind us of concepts, God being the main concept.

[173] "Flavin makes 'instant-monuments' (…) The 'instant' makes Flavin's work a part of time rather than space. Time becomes a place minus motion. If time is a place, then innumerable places are possible. Flavin turns gallery-space into gallery time. Time breaks down into many times. Rather than saying, 'What time is it?' we should say, 'Where is the time?' 'Where is Flavin's Monument?' The objective present at time seems missing. A million years is contained in a second, yet we tend to forget the second as soon as it happens. Flavin's destruction of classical time and space is based on an entirely new notion of the structure of matter." In Robert Smithson, *Entropy and the New Monuments*, *Artforum*, June 1966, republished in *The collected Writings of Robert Smithson*, op. cit., p. 11.

compressional by dramatic reversal. As electrically contracted, the globe is no more than a village." [174] And Smithson says: "a million year is reduced to a second", as if time and space were now reduced to a point. Smithson here describes Flavin's work in the same way the author of a science-fiction novel would describe a perplexing object. The introduction of *The Time Machine* by H.G. Wells resonates particularly with his description of Flavin's work as the spatio-temporal theory it presents appears as puzzling. Here a protagonist asks: "how could it be possible to move materially in time as we materially move in space?" The time traveler had discovered that this was now possible, whereas we could before only move mentally in time, by imagination.[175] Such questions were elaborated by anticipation novels as electric energy and telecommunications developed. They find an acute actuality with the development of electronic technologies. Looking at Flavin's monuments, Smithson places himself in the line of these reflections on the spatial and temporal shifts created by new technologies.

About what he calls the "gallery time" created with Flavin's "monuments", he says: "time becomes a place minus motion". As if time were becoming a solid object. What appears is that he is presenting Flavin's "monuments" as some kinds of crystals: "If time is a place, then innumerable places are possible." he writes. In clear kinds of crystals, light appears as if congealed, and if light is congealed, so is time. Crystals are solid compressions of matter: there is no flow in such materials, no time stream is anymore possible. With its multiple facets, a crystal reverberates a scene by producing as many multiple images of it that break down into many images or as says Smithson, "time breaks down into many times." Compressions of matter, crystals are the last state of a matter that was before fluid or gaseous. As ultimate state of a matter,

---

[174] Marshall McLuhan, *Understanding Media*, The MIT Press, 1964-1994, p. 5.
[175] " 'Scientific people,' proceeded the Philosopher, after the pause required for the proper assimilation of this, 'know very well that Time is only a kind of Space. (…) /'But,' said the Medical Man, staring hard at a coal in the fire, 'if Time is really only a fourth dimension of Space, why is it, and why has it always been, regarded as something different? And why cannot we move in Time as we move about in the other dimensions of Space?'
The Philosophical Person smiled. 'Are you sure we can move freely in Space? Right and left we can go, backward and forward freely enough, and men always have done so. I admit we move freely in two dimensions. But how about up and down? Gravitation limits us there.' (…) / 'And you cannot move at all in Time, you cannot get away from the present moment.' / 'My dear sir, that is just where you are wrong. That is just where the whole world has gone wrong. We are always getting away from the present moment. Our mental existences, which are immaterial and have no dimensions, are passing along the Time-Dimension with a uniform velocity from the cradle to the grave. (…) / 'But the great difficulty is this,' interrupted the Psychologist. 'You CAN move about in all directions of Space, but you cannot move about in Time.' / 'That is the germ of my great discovery. But you are wrong to say that we cannot move about in Time. For instance, if I am recalling an incident very vividly I go back to the instant of its occurrence: I become absent- minded, as you say. I jump back for a moment.' " H.G. Wells, *The Time Machine*, on http://archive.org/details/timemacliineinvenOOwell

they are commonly associated with memory. Smithson's connection of Flavin's monuments with crystals is thus very appropriate.

McLuhan's thesis on the instantaneity of information is also close to the problem of crystal. Effectively, if information travels so fast that we do not have the time to perceive its movement, then the result is that we get a kind of instant crystal: a multitude of information stuck, fixed as solid matter. And if we do not look closely at a clear crystal but only from far away, we cannot see any image in it but only the reverberation of light between the facets of which it is composed: a bright and massive light, we cannot "read" any information through the crystal. This is how we can understand Smithson's conclusion about Flavin's situations. Like a crystal, it is a compression of time in a place. Like a crystal that we do not look closely at, Flavin's *situations* for "barren rooms" provide the viewer with a total amnesia: "A million years is contained in a second, yet we tend to forget the second as soon as it happens."

If information travels so fast and becomes so important, is it possible to have any memory of anything or anybody at all? The question is implied in McLuhan's thesis with the "globe's contraction". In the Antiquity, Aristotle already noted this point in his *De Anima*: "Some men in the presence of considerable stimulus have no memory".[176] This issue resonates with Flavin's fluorescent light monuments: light usually symbolizes memory and thought, this is the use of the candles dedicated to the memory of individuals in churches. Now if light is too strong, this is often the case with fluorescent light, it attacks the eyes and memory as remembrance cannot work.[177] Here we do not have the shock of the flicker film, but light flowing, symbol of memory escapes us: "we tend to forget the second as soon as it happens."[178] Smithson thus presents an ambivalent aspect about Flavin's monuments: his light tubes as "monuments" are supposed to act as markers for memory in a place, yet they tend to construct a space that overwhelms our common spatio-temporal landmarks.

---

[176] "Some men in the presence of considerable stimulus have no memory (…) neither the very quick nor the very slow appear to have good memories; the former are moister than they should be, and the latter harder; with the former the picture has no permanence, with the latter it makes no impression." Aristotle, *De Anima*, quoted by Frances Yates, *The Art of Memory*, Routledge, 1966-1999, p. 33.

[177] This was the explicit goal of Paul Sharits with the flicker film as we saw in the second chapter.

[178] This sentence could have also worked if Smithson was talking about a film: the twenty-four frames per second of a film can provide a vertiginous succession of places, thus we could be provided quite easily with "innumerable places" or "a million years is contained in a second".

2- "the destruction of classical space" or space without shade

"Flavin's destruction of classical time and space is based on an entirely new notion of the structure of matter" writes Smithson. In resonance with this declaration, Mel Bochner notices that in Flavin's *situations*, there are no shadows anymore, a particularity due to the fluorescent tubes (Fig. 1. 43). [179] As Bochner remarks after he experienced Flavin's work: "Up until about fifteen years ago all light came as points. All sources of illumination including the sun were singular and radiated from a point source. With the proliferation of fluorescent lighting, a perceptual revolution occurred with probably deeper significance than the invention of the light bulb (which still created chiaroscuro shadows). Light now occurs in long straight lines obliterating shadows. It can in effect surround. For Flavin (who does not 'use' light in the sense of so-called 'light-artists') this is an important factor. It is due to this that he attains such a high degree of artificiality and unnaturalness (what Bertold Brecht refers to as 'the alienation effect')."[180]

Mel Bochner talks of a space without shadows. More precisely, the reflections of the fluorescent lights on the walls and floor replace shadows (Fig. 1. 37 and Fig. 1. 38). Without shadows the space appears as if congealed, and this paradoxically as electric light energy (heat) is its essential element. Flavin himself noted that in placing his fluorescent light situations in the corner of a room, he was aiming at destroying that corner, thus destroying the classical space: "you can destroy that corner by glare and doubled shadow."[181]

The metaphor of the crystal to describe the work of a fellow artist was actually not new for Smithson by 1966. At that time, he had already written two texts in which he dealt with the work of his fellow Donald Judd as a crystal. The first is named *Donald*

---

[179] Both Smithson and Bochner wrote on Dan Flavin's work following the *Primary Structures* exhibition held at the Jewish Museum of New York from April 27 to June 12 ,1966. Smithson's *Entropy and the New Monument* was published in June 1966 in *Artforum*. Bochner's review of the exhibition entitled *Primary structures: a declaration of a new attitude as revealed by an important exhibition*, was published in *Arts magazine* the same month. Bochner developed the study of Flavin's work in many subsequent reviews published in *Arts Magazine*.

[180] Mel Bochner, in his review *Serial Art*, published in *Arts Magazine*, summer 1967, republished in Mel Bochner, *Solar system & rest rooms, writings and interviews 1965-2007*, The MIT Press, 2007, p. 42.

[181] "I knew that the actual space of a room could be broken down and played with by planting illusions of real light (electric light) at crucial junctures in the room's composition. (…) you can destroy that corner by glare and doubled shadow. A piece of wall can be visually disintegrated from the whole into a separate triangle by plunging a diagonal of light from edge to edge on the wall." Dan Flavin, *in daylight and cool white*, *Artforum*, December 1965. In the same essay, he writes about his exhibition at the Green Gallery: "In November 1964, the Green Gallery, held by strategic lines of light, became a quiet cavern of muted glow."

Judd in 1965[182], the other is *The Crystal Land* in 1966 (Fig. 1. 42).[183] In *Donald Judd*, he states that each of his work "offered a different solution for the dislocation of space"[184] and that these perfectly finished crystalline structures realize "the deposition of Infinite space", no less than the reversal of perspective space.[185] In that, it echoes Bochner's note about Flavin's space without shade: these works are crystals.

Being crystals, Judd's and Flavin's works are contractions of time and space.[186] Flavin not only realizes a deposition of the icon's sacred figures (as Tatlin and Malevitch): with the destruction of shadows, he realizes like Donald Judd, a deposition of the livable space of perspective representation (or infinite space if we consider the vanishing point of perspective). Crystals are a compression of matter where flow is not anymore possible. Bochner and Smithson in their respective writings assert an approach for crystalline structured works over the organic model of forms most traditionally dealt with in art historical approaches.[187] What is the "new notion of the structure of matter"? What does it imply in particular in connection with the development of the new technologies in the 1960s?

III- CRYSTALS, SCIENCE FICTION, ENTROPY: THE ISSUE OF TIME

1-Crystal as model

In the end of his review *Serial Art* in which he analyzes also the works by Carl Andre and Sol LeWitt, Mel Bochner gives a characterization of the crystalline works of these artists as inert, boring, frozen and deadpan. They introduce to an indifferent

---

[182] Published in the Philadelphia Institute of Contemporary Art catalog of the exhibition *7 sculptors*, 1965.

[183] Published in *Harper's Bazar* in May 1966. This later is introduced as follows: "the first time I saw Don Judd's pink Plexiglas box', it suggested a giant crystal from another planet." In *Writings*, p. 7. Judd completely disapproved Smithson's texts on his work and was very angry against him. As notes Dan Graham in his interview with Eugenia Tsai on October 27, 1988, in those texts Smithson "invented Judd". See *Zeichnungen aus dem Nachlass*, op. cit., p. 14.

[184] He also tells that in one work "the space seemed squeezed out." In *Writings*, p. 5.

[185] As writes Smithson: "space in Judd's art seems to belong to an order of increasing hardness, not unlike geological formations. He has put space down in the form of deposition. Such deposits come from his mind rather than nature. Instead of bringing Christ down from the cross, the way the painters of Renaissance, Baroque and Mannerist periods did in their many versions of The Deposition, Judd has brought space down into an abstract world of mineral forms. He is involved in what could be called, 'the Deposition of Infinite Space.'" writings, p. 6.

[186] *Writings*, p. 6.

[187] Smithson investigates in the history of classical art to characterize exceptions among the organic rule. These exceptions enable him to ground his approach against that of organic art historical approaches. He sees Michelangelo's works as crystalline: "his 'figures' are geometric edifices, more like buildings than human beings" and "Michelangelo's figures are more primordial and are part of an archaic ritual sense of order. They refer more to the tombic art of ancient Egypt or Mexico." in *What really spoils Michelangelo's sculpture* (1966-67), in *Writings*, op.cit., pp. 346-347. This point will be developed in our Chapter 1 Part III.

timelessness, devoid of any transcendental symbolic link. He notes that "their boredom may be the product of being forced to view things not as sacred but as they probably are… autonomous and indifferent."[188] Smithson opens *The Crystal Land* with this exergue: "Ice is the medium most alien to organic life, a considerable accumulation of it completely disrupts the normal course of processes in the biosphere."[189] In his library, we find several books on crystals. His development of crystalline works of art is the result of acute consideration on the properties of such materials. A crystal, from the Greek "clear ice", is as says Charles Bunn in *Crystals: Their Role in Nature and in Science* — a book in Smithson's library — "anything having a precisely ordered internal structure, anything in which the particles are stacked".[190] Crystals grow up by a process of cooling of a material (liquid or gas, for example the magma becoming a crust), or in cold environments. They are the result of a solidification of matter. Their particularity is that they contain low energy[191], "very much less energy of molecular movement than liquids".[192] Bunn remarks that if crystals are formed at low temperatures, this is "because molecules settle into the most stable positions, and when all molecules take up the same mutual attitude, repetition in all directions leads to the regular patterned arrangement which is what we mean by the word crystalline."[193]

Crystals are a kind of compression of matter reduced to a low molecular energy. The formation of crystalline structures is the result of "energy-drain" — entropy. This is the reverse of electric energy, an increase of molecules in matter. As electric energy develops always faster in every part of contemporary society with the use of an increasing number of electric machines, artists turn towards crystalline structures. With which materials are built these crystalline structures? "plastic and neon" writes Smithson, technological materials produced with electric energy. By 1963, Smithson was working with plastic for his paintings and we saw that he did his only neon work in 1964. About his work *Quick Millions* of 1965 he writes: "I like plastic because it

---

[188] Mel Bochner, in his review *Serial Art*, published in *Arts Magazine*, summer 1967, republished in Mel Bochner, *Solar system & rest rooms, writings and interviews 1965-2007*, The MIT Press, 2007, p. 42.
[189] This is a quote of P.A. Shumkii, *Principles of Structural Glaciology* in *The Crystal Land*, writings, op. cit., p. 7.
[190] Charles Bunn, *Crystals: Their Role in Nature and in Science,* Academic Press Inc., 1964, p. 9. Bunn's book was in Robert Smithson's library. Smithson used several schemas from Bunn's book in some of his articles. Bunn relates that such structures were named so due to the fact that: "In the middle ages it was thought that these crystals were a permanent form of ice, hardened by the intense cold of the mountains; hence the name 'crystal' or clear ice." Ibidem, p. 2.
[191] "the most stable arrangement, the one containing the least free energy" Ibidem, p. 32
[192] Ibidem, p. 22. Heat is a form of motion due to a force of attraction of molecules notes Charles Bunn, thus "The feeling we have when we touch something hot is the feeling of increased molecular movement." Ibidem, p. 20
[193] Ibidem, p.22-23.

can be both real and/or unreal, according to your mood. Plastic exists between a solid specific and a glittering generality." (Fig. 1. 44) [194] Judd's "pink plexigas box" as calls it Smithson (the actual title is *Untitled, March 8, 1965*) is of a type of plastic and Flavin uses fluorescent light tubes. Such works make the elaborate products of technology go back to a structural state of low energy, realizing what Smithson calls "the funeral of technology".[195] About the general tendency towards crystalline works made out of new technological material, he remarks: "They bring to mind the Ice Age rather than the Golden Age, and would most likely confirm Vladimir Nabokov's observation that, 'The future is but the obsolete in reverse'."[196]

2- Crystals and science fiction: the issue of time

"The future is but the obsolete in reverse" — this statement is excerpted from Nabokov's novel *Lance*, published in the *New Yorker* on February 2, 1952, in which the narrator pictures "a more or less remote descendant" of his, Lance, going on an interplanetary voyage. Time is remote but kept voluntarily undetermined "let it be 2145 A.D. or 200 A.A., it does not matter". This is in describing the look of Lance's father, "a brilliant medievalist" whose "appearance is out of date" that the narrator remarks: "there is nothing extraordinary in the tendency to give to the manners and clothes of a distant day (which happens to be placed in the future) an old-fashioned tinge, a badly pressed, badly groomed, dusty something, since the terms 'out of date', 'not of our age', and so on are in the long run the only ones in which we are able to imagine and express a strangeness no amount of research can foresee. The future is but the obsolete in reverse."[197]

---

[194] In *Quick Millions, artist's statement, writings,* op. cit., p. 3. In the same text, he writes about the work: "It is a terminal work: sealed, impenetrable, unrevealing—forever hidden. (…) *Quick Million* might be an anti-parody of obsolete science-fiction type architecture, or slippery forms of spaces but I doubt it. One could also say it has a 'non-content'. All kinds of engineering fascinates me, I'm for the automated artist."

[195] Smithson quotes in particular Dan Flavin, Robert Morris, Donald Judd, Sol LeWitt, Larry Bell, Craig Kauffman, Paul Thek. — In his text *An esthetic of disappointment*, 1966, he coins the expression "the funeral of technology", commenting about the exhibition at the Armory Show: "Art's latest derangement at the 25th Armory seemed like The funeral of technology. Everything electrical and mechanical was buried under various esthetic mutations. The energy of technology was smothered and dimmed. Noise and static opened up the negative dimensions. The audience steeped in agitated stagnation, conditioned by simulated action, and generally turned on, were turned off. This at least was a victory of art." In *Writings*, p. 335. — In *A sedimentation of the mind*, he writes: "by refusing 'technological miracles' the artist begins to know the corroded moments, the carboniferous states of thought, the shrinkage of mental mud, in the geologic chaos — in the strata of geologic consciousness." In *Writings*, p. 107.

[196] In *Entropy and the New Monuments*, *Artforum*, June 1966, republished in *The collected Writings of Robert Smithson*, op. cit., p. 11.

[197] Vladimir Nabokov, *The stories of Vladimir Nabokov*, Vintage Books, 2006, p. 635.

Nabokov offers here the negation about any progress in time. For him, projecting in the future is about the same thing as projecting in the past, it is a movement of imagination. First taking the appearance of a science-fiction novel, his novel acts in fact as a critique of this literary form as well as a critique of science to point Man's relation to death in the space age. He questions science's fascination with the "forward" movement, pointing that science is in itself a religion. Indeed, this movement is of the same kind as that towards the after-life in Christian religion. This negation of any evolutionary process is what Smithson tends to show about the artworks he is describing. They engage the reverse of a long history in which time is viewed with the bias of an evolutionary process. Smithson refers again directly to Nabokov's "the future is but the obsolete in reverse" in his famous travelogue of 1967, *A Tour of the Monuments of Passaic* as he coins the expression "ruins in reverse". In 1972, he confirms again Nabokov's point that science has become a religion in itself, pointing that he tends to investigate how this "forward movement", the positivism with which technology is dealt with, is religious: "I'm trying to achieve a sublime nausea by using the debris of science and making it superstitious. Religion is getting so rational that I moved into science because it seems to be the only thing left that's superstitious. (…) All of this is a metamorphosis from religious iconography which I found a rather atrophied realm."[198] Thus making crystals, inert objects out of technological materials is a way to frieze the forward movement of religion and technological positivism.

3- "Inactive history" and *memento entropy*

As he introduces for the first time the term *entropy* in *Entropy and the New Monuments*, Smithson refers immediately to Dan Flavin, connecting him with Nabokov's non-evolutionary relation with time: "The works of many of these artists celebrate what Flavin calls 'inactive history' or what the physicist calls 'entropy' or 'energy-drain.' They bring to mind the Ice Age rather than the Golden Age, and would most likely confirm Vladimir Nabokov's observation that, 'The future is but

---

[198] *Interview with Paul Cummings*, op. cit., Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, Washington D.C.

the obsolete in reverse.' "[199]

At the time, Flavin used effectively the expression "inactive history" while projecting in a future where his works would not be operative anymore, the electric fixture having become obsolete: "in time the whole electrical system will pass into inactive history. My lamps will no longer be operative; but it must be remembered that they once gave light."[200] About his poem of 1961 quoted above, Flavin said "I go that, and rust and broken glass. I mean you really have no choice." Art historian Alex Potts analyzed well that the conscience of the future degradation of Flavin's work follows almost immediately the first impression, due to the fragile ephemeral materials: glass tubes enclosing electric light energy. He notes that "this situation both obsessed and fascinated him."[201]

"rust and broken glass" — in 1970, Smithson conceived a project in which he intended to use a big amount of broken glass: *Vancouver Project: Island of broken glass*. His intention was to cover entirely a small island with industrial broken glass. It would look like an enormous crystal. What interested Smithson was the degradation and the transformation of the work left with entropy: the sharp edges would have worn down and over a long time span, the glass would have turned to sand. The project remained unrealized because of the lobbying efforts of a group of environmentalists against the realization of the work (Fig. 1. 45 and Fig. 1. 46). [202]

---

[199] In *Entropy and the New Monuments*, *Artforum*, June 1966, republished in *The collected Writings of Robert Smithson*, op. cit., p. 11.

[200] Quoted by Alex Potts in *Dan Flavin "in… cool white and infected with a blank magic"*, in *Dan Flavin: New Light*, ed. by Jeffrey Weiss, Yale University Press, 2006, p. 19.

[201] Ibidem.

[202] As describes Philip Ursprung about the work: "his (Smithson's) idea was to shower a small, uninhabited island—actually a large rock protruding from the water—with broken glass, and Douglas Christmas, who owned the Ace galleries in Vancouver and Venice, California, supported the project. The plan was to unload a hundred tons of broken industrial glass from California onto the island on 2 February 1970. Smithson wanted to shatter the glass so that it would shimmer like emeralds. Within a few months erosion would have worn down the sharp edges, and within a few hundred years all the glass would have turned to sand. Two railroad freight cars set off from California with the glass. However, when they arrived at the Canadian border following mounting public protests, the Canadian environmental authorities refused the delivery entry. The mobilization of these protests was one of the first actions by a local group of environmentalists who, not long afterward, in 1971, founded the organization Greenpeace." Philip Ursprung, *Allan Kaprow, Robert Smithson, and the Limits to Art*, University of California Press, 2013, pp. 182-183. — the dumping of broken glass that constitutes *Island of broken glass* is to be placed in the continuation of the *flow works* of 1969 initated with *Asphalt Rundown,* realized in October 1969 near Rome. This work also aimed to last for some time. Asphalt was thrown by a truckload from the top of a quarry. As it got colder, as remarked art historian Philip Ursprung, "it became an imprint of the erosion and brought that process to a halt, since it was Smithson's intention that this work should last for some time." (in *Allan Kaprow, Robert Smithson, and the Limits to Art*, University of California Press, 2013, p. 181.). In his series of flow works, Smithson addresses the passage from the liquid to the crystallized state of a material with its subsequent degradation. The materials he uses are more or less refined materials and may degrade in the environment in more or less time: the *Glue Pour* that was realized in December 1969 in Vancouver for the exhibition 955,000 by Lucy Lippard, was of watersoluble glue, it was erased with a few rain falls. The *Concrete Pour*, realized in Chicago in November 1969 (for the exhibition *Art by Telephone*) was left to erosion. A pour of another kind was partially *Buried Woodshed* realized at Kent State University, Ohio in 1970 where twenty truckloads of earth were thrown

Island of broken glass would have been the recycling for artistic ends of the glass used by industry. Using the wreckage of industry, among these glasses we could have found those from Flavin's used fluorescent tubes — "rust and broken glass" as Flavin expressed himself, or those from Mies van der Rohe's buildings. Shining like an emerald in the sun, it would have been a kind of "memento entropy" of the neat glass products of contemporary industry. The work would have been the physical degrading memory of all these kinds of glasses. In such a work, entropy thus appears to be the last formulation of the timelessness that concerned Smithson in his religious paintings, a now very material timelessness. With this work, Smithson tells us: "entropy is beauty." He writes this short phrase in the margin of Norbert Wiener's book *The Human Use of Human Beings: Cybernetics and Society* (1950). What does such a statement imply?

In the next chapter, we will see how this phrase characterizes the shift that Smithson realizes in his work as he starts to look at media theories.

---

on the old woodshed until the central beam collapsed. The flows like *The Vancouver Project* have chocked the emerging ecologist movements at the time, in spite of the fact that some of the materials used were natural (asphalt). About *Asphalt Rundown*, Robert Hobbs explains that it "litteralizes the fact that the resultant work of art is not a tribute to the act, it is an incidence of entropy." (In *Robert Smithson: Sculpture*, Cornell University Press, 1981, p. 174.) He also sees the work as a transplantation of the action painting gesture, from canvas to the outer environment, which acts as a parody of such works and annihilates the grounds of action painting (Fig. 1. 47, 1. 48, 1. 49, 1. 50).

PART ONE

CHAPTER 4

ARCHAEOLOGY OF COMMUNICATION:

ROBERT SMITHSON AND COMMUNICATION THEORY

The entire message is then traced and retraced, again and again, on the rounds of a concentric spiral with seeming redundancy. One can stop anywhere after the first few sentences and have the full message, if one is prepared to 'dig' it. This kind of plan seems to have inspired Frank Lloyd Wright in designing the Guggenheim Art Gallery on a spiral, concentric basis. It is a redundant form inevitable to the electric age, in which the concentric pattern is imposed by the instant quality, and overlay in depth, of electric speed.

Marshall McLuhan, *Understanding Media*, 1964[203]

The medium is the mummy.

Robert Smithson, *The Artist as Site-Seer or Coded Environment*

Entropy is beauty.

Robert Smithson[204]

In a collage work from 1961-1963 entitled *St John in the desert*, Smithson surrounds a reproduction of Raphael's painting *St. John the Baptist in the Wilderness* (c. 1518) with a multitude of electrical circuit diagrams (Fig. 1. 51). In the picture, St John the Baptist points to the light-haloed cross at the end of his reed stick, the symbolic divine light whereas the electrical circuit diagrams relate to structures that produce an artificial light that is the result of a physical process a priori devoid of spiritual

---

[203] In Marshall McLuhan, *Understanding Media: the Extensions of Man*, chap.2, *Media Hot and Media Cold*, The MIT Press, 1964-1994, p. 26.

[204] In annotation of Norbert Wiener's *The Human use of human beings —Cybernetics and Society, de* in Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, Washington D.C.

symbols. In this work Smithson thus juxtaposes the reference to a spiritual energy with that of a physical energy produced artificially. Here we find again a point that he dealt with in other works at the time: the fall of revelation in the duration of *The iconography of desolation*, the repetition of the instant of revelation with his neon work *The Eliminator*, and his view on Flavin's fluorescent light tubes whose "limited light" positions in opposition to the symbolic eternal light. In this work, the diagrams relating to electrical communication reveal the beginnings of his interest in the theories of communication that develop in the years 1950-1960, at the time he was setting up his own plastic thinking. His readings of books on communication theory play an essential role in the theorization of his own plastic practice based on crystalline structures. The principle of entropy that he shows to be fundamental for the understanding of the new works in his article *Entropy and the New Monuments* in 1966 was developed mainly in communication theory.

Norbert Wiener's *The Human use of human beings —Cybernetics and Society* (1950) was an important influence for Smithson. Throughout his writings he also often refers to Marshall McLuhan, whose *Understanding Media: The Extensions of Man* was published in 1964. However he remains critical about the relation with technologies proposed by the latter. In 1962, two years before the publication of *Understanding Media*, art historian George Kubler's *The Shape of Time* was published. Smithson and several of his fellow artists (in particular Robert Morris) praised this book for its new approach of objects in time. Using terms like "signal" and "relay", Kubler was employing the vocabulary of communication theory to refer to art objects.

Between his readings of Wiener, McLuhan and Kubler, how does Smithson develop a plastic thought nourished by reflections on communication theory? What is the aesthetic approach that he sketches?

I- THEORY OF COMMUNICATION AND ART

1- "entropy is beauty": Smithson reads Norbert Wiener

In his library, Smithson had several books on communication theory. He had read and annotated a book called *Symbols, Signs and Noise: The Nature and Process of Communicatio*n by J.R. Pierce. There the author traces a history of communication

theory, explaining what it is by developing its relations namely with nature, physics and art and developing on the question of entropy. He notes that "communication theory is an outgrowth of electrical communication, and we know that the behavior of electric currents and electric and magnetic fields is a part of physics." [205] In physical terms, communication is a production of energy. Energy consists in an increase of molecular atoms in matter that enables a signal to be transmitted and relayed. Considering energy of a particular material implies considering its reverse, entropy, which is the decrease of molecular atoms in matter.[206] As states J.R. Pierce "an increase of entropy means a decrease of available energy".[207]

In the second chapter of his essay *The Human Use of Human Beings — Cybernetics and Society* (1950), entitled *Progress and Entropy* Norbert Wiener discusses the fact that by producing energy, man and machine both resist the general tendency of nature toward entropy.[208] As he states, "there are local and temporary islands of decreasing entropy in a world in which the entropy as a whole tends to increase, and the existence of these islands enables some of us to assert the existence of progress."[209]

Wiener's declarations in this chapter are worthy to be compared to the narrative canvases of some science-fiction films or novels of which Smithson was so fond of in the 1960s. On page 40, he underlines two small paragraphs: "again, it is quite conceivable that life belongs to a limited stretch of time; that before the earliest geological ages it did not exist, and that the time may well come when the earth is again a lifeless, burn-out, or frozen planet. (…) In a very real sense we are

---

[205] J.R. Pierce, *Symbols, Signs and Noise — The Nature and Process of Communicatio*n by Harpers and Brothers, 1961, p. 184.

[206] The word entropy was coined by Rudolph Clausius in 1865, in his *Sur diverses formes des équations fondamentales de la théorie mécanique de la chaleur*, following the researches of Sadi Carnot. Entropy comes from the Greek "transformation". He explained his choice of the term this way: "I prefer to borrow from the ancient languages the names of important scientific quantities so they can stay the same in all languages; I therefore propose to call the quantity S the entropy of the body, from the Greek word η τροπη, transformation. It is purposely that I have formed this word entropy, so that it is as close as possible to the word energy; because these two quantities have such an analogy in their physical meaning that an analogy in denomination seemed useful."— « *Je préfère emprunter aux langues anciennes les noms des quantités scientifiques importantes, afin qu'ils puissent rester les mêmes dans toutes les langues vivantes ; je proposerai donc d'appeler la quantité* S *l'entropie du corps, d'après le mot grec η τροπη* une transformation. *C'est à dessein que j'ai formé ce mot* entropie, *de manière qu'il se rapproche autant que possible du mot* énergie *; car ces deux quantités ont une telle analogie dans leur signification physique qu'une analogie de dénomination m'a paru utile."*, quoted in Dominique Lecourt, *Dictionnaire d'histoire et de philosophie des sciences*, PUF, 1999.

[207] In *Symbols, Signs and Noise*, op.cit., p. 22.

[208] "the machine, like the living organism, is, as I have said, a device which locally and temporarily seems to resist the general tendency for the increase of entropy. By its ability to make decisions it can produce around it a local zone of organization in a world whose general tendency is to run down." Norbert Wiener, *The Human Use of Human Beings: Cybernetics and Society*, Doubleday Anchor Books, 1954, p. 34.

[209] Ibidem, pp. 36-37. On the next page, Smithson underlines this passage: "in Darwin's nature, we have the appearance of a purposefulness in a system which is not purposefully constructed simply because purposelessness is in its very nature transitory." Ibidem, p.38.

shipwrecked passengers on a doomed planet. Yet even in a shipwreck, human decencies and human values do not necessarily vanish, and we must make the most of them. We shall go down, but let it be in a manner to which we may look forward as worthy of our dignity."[210]

Cybernetics — Wiener retrieved the word from the Greek *kubernêtikê* (κυβερνητική), which designates a rudder.[211] For Norbert Wiener, communication always implies control — and control always implies the production of a kind of organization that would suspend for a time the general tendency to run down. If we go back to the Latin etymology of the term *control*, it is composed of *contra* (against) and *rotulus* (wheel), thus it clearly means going against the wheel, directing it, governing it.

 In Chapter VII of *The Human Use of Human Beings* entitled *Role of the Intellectual and the Scientist*, Smithson underlines and annotates a whole paragraph devoted to the issue of communication in relation with art. It deals with the relation between entropy and art and Wiener writes that "every day we meet with examples of painting where, for instance, the artist has bound himself from the new canons of the abstract, and has displayed no intention to use these canons to display an interesting and novel form of beauty, to pursue the uphill fight against the prevailing tendency toward the commonplace and banal. (…) No school has a monopoly on beauty. Beauty, like order, occurs in many places in this world, but only as a local and temporary fight against the Niagara of increasing entropy."[212] Smithson's annotation of this paragraph is a short phrase: "entropy is beauty".

Indeed, beauty is traditionally a fight against entropy, it is only transitional and Plato does not exist in Wiener's world. Smithson sees that the only thing that could replace the "timelessness" of beauty as it is viewed in western society, is the process of entropy. We would enter a new kind of timelessness that implies the degradation of all things and thus "entropy is beauty". This phrase can be seen as the *motto* of Smithson's whole work from that period on.

2- Communication theory, electronics and time

---

[210] Ibidem, p. 40.
[211] Norbert Wiener introduces the term in *Cybernetics, or control and Communication in the Animal and the Machine* (1948) published at the MIT Press.
[212] Ibidem, p. 134.

In 1964, fourteen years after Norbert Wiener's essay, *Understanding Media: The Extensions of Man* by philosopher Marshall McLuhan was published. There McLuhan tends to characterize what is communication at the time of what he calls the "electric age", what shift humanity is experiencing in the passage from the mechanical to the electronic. [213] From the introduction on, he states: "our world has become compressional by dramatic reversal. As electrically contracted, the globe is no more than a village." [214] While in the slow movements of the past, long time span were required for a signal to travel from a transmitter to a receiver and to be given a new impulse, with electric technologies spatiotemporal data get suddenly compressed thus upsetting our habits. Says McLuhan "today the action and the reaction occur almost at the same time."[215] He shows that the keyword to characterize his contemporary time is "instantaneity".[216] As this spatiotemporal compression occurred, as the rhythm of communication accelerated, McLuhan shows that people seemed to need to question their relation with distant pasts in a new way: "Electric speed mingles the cultures of prehistory with the dregs of industrial marketers, the nonliterate with the semiliterate and the postliterate. Mental breakdown of varying degrees is the very common result of uprooting and inundation with new information and endless new patterns of information."[217] We could understand McLuhan's statement as follows: the human of the electric age perceives now signals emitted at various periods of the past, various periods of the evolution of the human being. This perception here and now creates on her/him a shock. In a sense, after McLuhan, the electric age would be the moment of the opening of a kind of indifferent Pandora box — sinless or sinful — from which signals of so many periods of time now appear. How can one deal with such an inundation of signals and how can one give new impulses to such signals?

In his essay *A Sedimentation of the Mind: Earth Projects* published in *Artforum* in September 1968, Robert Smithson declares that: "the 'present' (…) cannot support the cultures of Europe, or even the archaic or primitive civilizations; it must instead explore the pre- and post-historic mind; it must go into the places where remote

---

[213] McLuhan's "electric age" is actually the electronic age.

[214] Marshall McLuhan, *Understanding Media*, The MIT Press, 1964-1994, p. 5. We quoted this excerpt in the previous chapter in relation with Smithson's view on Flavin. Smithson criticized McLuhan's theory of media for its anthropomorphism, we will develop this important point in this chapter.

[215] Ibidem, p.4.

[216] "So the greatest of all reversals occurred with electricity, that ended sequence by making things instant. With instant speed the causes of things began to emerge to awareness again, as they had not done with things in sequence and in concatenation accordingly. Instead of asking which came first, the chicken or the egg, it suddenly seemed that a chicken was an egg's idea for getting more eggs." Ibidem, p. 12.

[217] Ibidem, p.16.

futures meet remote pasts".[218] Both Smithson and McLuhan point a relation to distant pasts and the need to find a new way to locate in the course of time. McLuhan remarked how this spatiotemporal compression in the every day life experience due to the development of new technologies was an important aesthetic challenge to deal with for artists: "The effects of technology do not occur at the level of opinions or concepts, but alter sense ratios or patterns of perception steadily and without any resistance. The serious artist is the only person able to encounter technology with impunity, just because he is an expert aware of the changes in sense perception."[219] When Smithson deals with the issue of this spatiotemporal shift by meditating on Flavin's fluorescent light works in *Entropy and the New Monuments*, he refers again to McLuhan about the effect of "torpor" created on Man by the new technologies. Smithson's relation with McLuhan's thinking is complex: he sometimes seems to work after elements developed by the philosopher, and he sometimes formulates sharp criticism about other points of McLuhan's approach. We will now focus on this latter point.

II—STRUCTURAL THEORY OF COMMUNICATION VERSUS ANTHROPOMORPHIC THEORY OF COMMUNICATION

1- Critic of anthropomorphic theory of communication

In *A sedimentation of the mind* Smithson criticizes Marshall McLuhan's communication theory for its "anthropomorphism": "the manifestations of technology are at times less "extensions" of man (Marshall McLuhan's anthropomorphism) than they are aggregates of elements." This short remark in parenthesis could be missed by passing, it actually resumes an important discrepancy between Smithson and McLuhan in the approach of information. What can McLuhan's anthropomorphism mean? In 1967, art historian Michael Fried gave a definition of anthropomorphism completely different from that of Smithson. In his famous critique of Minimalist sculpture, *Art and Objecthood*, he "accused" Robert Morris's sculpture *Untitled (Ring with Light)* from 1965 of "covert anthropomorphism" because "it is, as numerous

---

[218] *A Sedimentation of the mind: earth projects*, in *The collected writings of Robert Smithson*, op. cit., p. 113.
[219] *Understanding Media*, op. cit., p. 18.

commentators have remarked approvingly, as though the work in question has an inner, even secret, life".[220]

Smithson's critic on McLuhan first expresses well the turn taken by artists at the time: the shift from the organic to the inorganic. He opposes "extensions of man" (organic) to "aggregates of elements" (geological process). So what makes McLuhan's theory an anthropomorphic theory? The expression "the technological extension of our bodies", repeated regularly throughout his text shows well that there is an anthropomorphic problem.[221] But how is anthropomorphism a problem? Philosopher John Fekete indicates well the point when saying that McLuhan claims an "immediate identity between humans and human objectifications" (extensions).[222] McLuhan's theory dissolves humans with their objectifications (technologies as extensions). The main problem is that with this dissolution, there is no more consciousness about these extensions as merely objects, thus no more consciousness about our alienation about them. McLuhan repeats that new technologies change both our ways of living and our bodies. However, he does not bring a real critical view on these changes, not providing a proper analysis of the forces at stake on the problem of communication in the electric age and in the commercial society in development.[223] His essay is more of a kind of investigation about our affective relation with technology over time. He was a professor of English literature and he there makes a poetic prose gathering tremendous literary excerpts. Due to this lack of critical view, his theory of media is a theory of evolution in which the human becomes always more ethereal. It is "one-dimensional" to use philosopher Herbert Marcuse's term.[224] This latter claimed that with the development of consumerism via mass media, what he calls the "advanced industrial society" creates a "one-dimensional" mind and way of life, making critical mind always more difficult if not moved apart.

---

[220] Quoted in Exh. Cat. *Robert Morris, The Mind/Body Problem*, The Solomon R. Guggenheim, 1994, p. 176. In contrast, for Smithson, Morris's work is crystalline. He considers that *Ring with Light* is the attempt to find a contemporary actualization of Stonehenge. We will develop Smithson's complex problem with anthropomorphism in Chapter 3 Part III of this dissertation.

[221] In the first lines of *Understanding Media*, he says: "Today, after more than a century of electric technology, we have extended our central nervous system itself in a global embrace, abolishing both space and time as far as our planet is concerned." *Understanding Media*, op. cit., p. 3.

[222] The expression is by philosopher John Fekete in his essay *The critical theory of counterrevolution*, in *Marshall McLuhan, Fashion and Fortune*, ed. by Gary Genosko, Routledge, 2005.

[223] Indeed, the main reproaches that were addressed to McLuhan's theory were not so much about its anthropomorphism (this notion is variable as we have seen) than about the fact that it does not raise a view critical enough about the place of technologies in the commercial society in development.

[224] Marcuse coined this word in his essay *One-dimensional Man: studies in the Ideology of Advanced Industrial Society* that was published the same year as McLuhan's theory of media, in 1964.

By focusing on the new technologies, McLuhan's theory may first give the illusion of materialism but it is not. It follows the stream of the electricity he speaks about rather than to try to hang on a transistor in order to see a bit more concretely how this all works.[225] John Fekete characterizes McLuhan's theory as "idealist materialism". As he expresses: "some interpretations of McLuhan will stress the technological focus, and classify the theory as materialist; others will stress the psychic sensory focus, and consider it idealist. McLuhan's technological determinism has been viewed by some as simply an anti-humanist surrender to transcendence."[226] Smithson understood this problem at the time: in a draft for his text *The Establishment* in 1968, he writes "Materialism and idealism have been so confounded."[227]

McLuhan's famous "the message is the medium" does not question about the control in the selection of information at stake behind the medias, i.e. who controls information and machines and how. Not giving a genuine analysis of the forces of power at stake beyond media, it keeps more prophetic than really materially grounded. This is the reason why Smithson often alludes to McLuhan in his writings, whether in brief notes, or with puns such as "the medium is the mummy" in reference to McLuhan's famous "the message is the medium".[228]

2- Structural theory of communication: raw materials, prime objects

a- What is a raw material ?

In contrast with McLuhan repeating the word "extension", a recurring expression in Smithson's writings is "raw matter" and "raw material". About the new technologies Smithson states: "Even the most advanced tools and machines are made of the raw matter of the earth. Today's highly refined technological tools are not much different

---

[225] For example in a passage like this one: "Our electric extensions of ourselves simply by-pass space and time, and create problems of human involvement and organization for which there is no precedent." (*Understanding Media*, op.cit., p. 105.) McLuhan does not define what is an "electric extension", he does not try to explain what are these problems of "human involvement and organization".

[226] In *Marshall McLuhan, The critical theory of counterrevolution*, in *Marshall McLuhan, Fashion and Fortune*, ed. By Gary Genosko, Routledge, 2005, p. 55.

[227] Robert Smithson and Nancy Holt Papers, Archives of American Art, reel 3834. In *A sedimentation of the mind* he present technology as strongly related with idealism: "Technological ideology has no sense of time other than its immediate 'supply and demand', and its laboratories function as blinders to the rest of the world. Like the refined 'paints' of the studio, the refined 'metals' of the laboratory exist within an 'ideal system'. Such enclosed 'pure' systems make it impossible to perceive any other kind of processes than the ones of differentiated technology." In *Writings*, p. 106.

[228] In *The Artist as Site-Seer or Coded Environment*. We will get back to this point in Chapter 2 Part III. Saying "the medium is the mummy" means insisting on, asserting the signified, the meaning, whereas with "the message is the medium" McLuhan says that with the acceleration of communication speed, the impact of the signifier is such that it masks the signified: the movement would be so fast that one would not have the time to grasp the signified.

in this respect from those of the caveman."[229] For Smithson, we should always be aware that at the basis of a technological material there are always raw materials. Being able to recognize the raw materials in the most sophisticated technological materials enables not to get lost in what he calls "the abstraction of technologies", an ethereal approach of technologies.[230]

What is a "raw material"? In *The Capital* Karl Marx gives a definition of "raw material". It is the material extracted from the earth or sea, the result of a work of extraction that is ready to be refined in the industry with another kind of work.[231] Raw materials are the basic, unrefined materials we know as copper, iron, coal, air, crud oil, seawater, etc.: materials that will be refined and/or aggregated for consumption use in society. Raw materials are extracted from earth and sea through man's labor and get refined with the mediation of another kind of human labor. When a material is refined or aggregated with other materials, Smithson tells us that we should always be able to find it back, know it is well here. This point makes it possible to keep the raw material as reference point so that a new material will not be an "abstraction". This mental "disaggregation" enables to understand the refined material. For Smithson, in the electronic age raw materials keep our points of references while in McLuhan's theory, they seem to be lost in the continuous flow of evolution. This is the major issue on which Smithson opposes McLuhan's theory.

b- Raw materials and prime objects

At the opposite of Marshall McLuhan's ethereal view on technology, Smithson is very stimulated by the one developed by art historian George Kubler in *The Shape of Time* about "prime objects and replications". As we indicated in Chapter 2, Kubler recognized the influence of Norbert Wiener's Cybernetics for the conceptualization of his theory. Smithson's view on raw materials is similar to art historian George Kubler's view on prime objects and replications in a sequence of forms. Smithson in

---

[229] In *A sedimentation of the mind: Earth Projects*, in *The collected Writings of Robert Smithson*, op. cit., p. 101.
[230] Smithson uses the expression « abstractions of technologies » in *Untitled* (1972), in *Writings*, p. 379.
[231] The raw material is as describes Marx: "The soil (and this, economically speaking, includes water) in the virgin state in which it supplies man with necessaries or the means of subsistence ready to hand, exists independently of him, and is the universal subject of human labor. All those things which labor merely separates from immediate connection with their environment, are subjects of labor spontaneously provided by Nature. Such are fish which we catch and take from their element, water, timber which we fell in the virgin forest, and ores which we extract from their veins. If, on the other hand, the subject of labor has, so to say, been filtered through previous labor, we call it raw material; such is ore already extracted and ready for washing. All raw material is the subject of labor, but not every subject of labor is raw material: it can only become so, after it has undergone some alteration by means of labor." Karl Marx, *The Capital*, *Chapter 7: the labor process and the process of producing surplus-value*, on http://www.marxists.org/archive/marx/works/1867-c1/ch07.htm

fact applies Kubler's theory about "prime objects" to "materials".[232] Kubler's theory is effectively at the opposite of McLuhan's theory of technology as extensions of man. It is a structuralist theory. A "sequence of forms" gathers several objects that are based on a same problem. In the sequence, prime objects are the ones that give a new answer to the problem, they are "principal inventions", while what he calls the "replica-mass" related to each new prime object make its idea popular, they are its "derivations". He compares the prime objects with prime numbers as they "resist decomposition in being original entities."[233]

We have here raw materials (prime materials), prime objects and prime numbers. All these primes, material, object and number, have in common this point: they cannot be disaggregated. As the raw material enables to understand contemporary technological materials composed of various aggregated materials, Kubler's prime objects make it possible to understand how a formal problem has been worked throughout time. A "formal sequence" of works in time enables to analyze art works in a more open way than the categorizing into styles, which frame works in small periods of time, rarely wider than a century.[234] Indeed, Kubler shows that it permits to trace connection between art works through long time span by identifying a main problem and the

---

[232] In French, "raw material" translates as "matière première": literally "prime material". This makes the connection even more evident.

[233] George Kubler, *The Shape of Time—Remarks on the History of Things*, Yale University Press, 1962-1970 (sixth printing), p. 39. He pursues "He explains what a prime objet is as follows: "Prime objects and replications denote principal inventions, and the entire system of replicas, reproductions, copies, reductions, transfers, and derivations, floating in the wake of an important work of art. The replica-mass resembles certain habits of popular speech, as when a phrase spoken upon the stage or in a film, and repeated in millions of utterances, becomes a part of the language of a generation and finally a dated cliché. Their character as prime is not explained by their antecedents, and their order in history is enigmatic." — Could there be more or less important primes in function of the change they bring? What would be the difference between a prime which is not a major one and a replication which is not the exact copy of a prime? Kubler recognizes the difficulty of his distinction. He says that "Prime objects correspond to prime traits, or to mutant intentions, while replicas merely multiply the prime objects." Ibidem, p. 43. And he pursues: "Many sorts of replicas reproduce the prime object so completely that the most sensitive historical method cannot separate them. In another kind of seriation, each replica differs slightly from all the preceding ones. These accumulated variations may originate without design, merely for relief from monotonous repetition. In time their drift is perceived and brought to order by an artist, who imposes upon a mass of replicas a new scheme manifested by a prime object not categorically different from the preceding prime object, yet historically different in that it corresponds to a different age of the formal sequence to which the prime objects both belong." Ibidem, p. 43.

[234] As says Kubler to introduce his idea: "Every important work of art can be regarded both as a historical event and as a hard-won solution to some problem. (…) The important clue is that any solution points to the existence of some problem to which there have been other solutions, and that other solutions to this same problem will most likely be invented to follow the one now in view. As the solutions accumulate, the problem alters. The chain of solutions nevertheless discloses the problem." George Kubler, *The Shape of Time—Remarks on the History of Things*, Yale University Press, 1962-1970 (sixth printing), p. 33. — He was disgusted with and rejected any notion of style, as he found that it could not enable to understand the problems on which art works are based: "The notion of style has no more mesh than wrapping paper for storage boxes. Biography cuts and sheds a frozen historic substance. Conventional histories of architecture, sculpture, painting, and the cognate crafts miss both the minute and main details of artistic activity. The monograph upon a single work of art is like a shaped stone ready for position in a masonry wall, but that wall itself is built without purpose or plan." Ibidem, pp. 32-33.

"sporadic, unpredictable, and irregular nature of (its) occurrence."[235] Chronology is avoided here in favour of a relation with time that is unforeseeable, irregular: a prime object can enter the sequence at any point and the theory enables to consider how an artist of the XXth century can give a new answer to a problem that had not been activated for several centuries.

Kubler's theory is a big shift from the conception of styles and forms as biological organisms in the field of art history.[236] Before him, as noted art historian Rolland Recht, two historians had introduced research methods that tended to break with the biological approach about style, however, still keeping the biological metaphor for their approach about form: Heinrich Wölfflin introduced the idea of simultaneity of formal experiences in a determined moment of history and Henri Focillon, George Kubler's teacher, introduced the idea of an autonomous life of forms.[237] In *The Shape of Time* with the theory of prime objects, Kubler brought the first approach that avoided the biological metaphor in relation with form, developing a structuralist method in art history.

3- George Kubler and cybernetics: heteronomous objects

Smithson discusses Kubler's theory in his unpublished essay *The Artist as Site-seer or Coded Environment* which he then retitled *The Artist as Site-seer, or a dintorphic essay* (1966-67). The term *Site-seer* plays on the homophony between *site* and *sight*. The artist here becomes the researcher for a theoretical site, an aesthetic approach that would enable a new sight. *Dintorphic* is a neologism composed of *dint* and *orphic*. Smithson's reference to orphism can be understood as a play on Kubler's theory of prime objects. In orphism, the soul is doomed to an endless cycle of reincarnations, from which it can be saved only thanks to initiation. In Kubler's theory, the idea of a prime is reactivated with another prime. Idea as soul. We can understand the word *dintorphic* as indicating a "biting orphism" going against all notion of art historical approach for the study of objects. In this essay Smithson highlights the connection of Kubler's theory with cybernetics. He explains first that Kubler's theory came to his

---

[235] Ibidem, p. 36-37. He continues: "The closest definition of a formal sequence that we now can venture is to affirm it as a historical network of gradually altered repetitions of the same trait."
[236] He uses the biological metaphor only once to compare the prime object in a sequence of form to a mutant gene: "although biological metaphors are avoided throughout this essay", Ibidem, p. 40.
[237] See Roland Recht, *Histoire de l'art européen médiéval et moderne*, on http://www.college-de-france.fr/media/roland-recht/UPL66349_Recht.pdf

mind because of his fellow artist Robert Morris who, as he reports, expressed that "what interested him most when he visited Stonehenge was not the trilithons at the center of the monument, but rather its mound-like fringes." [238] Robert Morris developed several works based on his consideration of this circle mound-like fringe. In 1965 he realized *Untitled (Ring with Light),* a sculpture in plywood and fluorescent light designing a ring split into two in its diameter, leaving an interstice from which some fluorescent light escapes. Later, in 1971, he conceived the *Observatory* in Holland, which like Stonehenge identifies the solstices and equinoxes (Fig. 2. 52 and Fig. 2. 53).[239]

Smithson does not specify if Morris's *Ring with Light* is a prime that gives a new impulse to Stonehenge's mound-like fringe or if it is a replication of this mound-like fringe. In fact, knowing if Morris's works related with Stonehenge are primes or other replicas is not so important: what attracts him in Kubler's theory is that objects are interconnected. This theory appears as an alternative to the modernist theory of the autonomous object and its continuation in part of the contemporary art of the time, namely Donald Judd's "specific objects".[240] With the theory of prime objects and replications, Kubler deals with the art objects of a sequence of forms in terms of "drift". Indeed, he explains that the relays of a signal emitted by an artwork deform the "message" when giving this message a new impulse and that "a series of relays may result in the gradual disappearance of the animus excited by the event."[241]

Thus in spite of the fact that he does not use the term "entropy", Kubler deals here with the same problem as that described by Norbert Wiener in *The human use of human beings*, a problem to which Smithson was very attentive. He sees artistic ideas as entities that get transformed over time until some elements get forever forgotten. In *The Artist as Site-Seer, or a dintorphic essay*, Smithson writes: "the abyss of language erases the supposed meanings of general history and leaves an awesome 'babel'." [242] He points exactly the drift with which Kubler deals with: the vanishing of an object's meanings in the succession of relays transmitting its message. The issue of the "drift"

---

[238] In *The Artist as Site-seer, or a dintorphic essay* (1966-67), in *The collected Writings of Robert Smithson,* op. cit., p. 340.

[239] In the flatlands of Ijmuiden on the occasion of the Sonsbeeck 1 international sculpture exhibition, built anew near Lelystad in Oostelijk Flevoland, in 1977

[240] Smithson expresses it this way: "The great Pyramid would qualify as a prime object, but would not as a Juddian 'specific object'." In *The Artist as Site-seer, or a dintorphic essay, Writings*, p. 341.

[241] He purses that "The most hated despot is the live despot: the ancient despot is only a case history." In George Kubler, *The Shape of Time*, op.cit., pp. 21-22.

[242] In *The Artist as Site-seer, or a dintorphic essay, Writings,* p. 341.

of the meaning of a prime object is particularly well shown by Smithson when he focuses on The Great Pyramid of Giza. Let us see how he proceeds.

III— MATERIALS AND WORDS: ARCHAEOLOGY OF A PRIMARY ENCODING SYSTEM

1- A genealogy of computing machines: sequence building

Says Smithson, Stonehenge and the Great Pyramid are each "an awesome computer, based on orbital chronologies and shifting calendars." Applying the model of George Kubler, he is tracing a sequence in time. In order to achieve this tracing, he takes a contemporary prime object, the model of the electronic computer recovering up the sequence and catching former prime objects in it by following the directing line of the sequence. This directing line is precisely the function of the computer: both calculating and storing data-memories. Thus he finds that the Great Pyramid of Egypt, Stonehenge and the modern electronic computer are part of the same sequence (Fig. 1. 54 and Fig. 1. 55). [243] From the few material witnesses about the functions of Stonehenge and the Great Pyramid of Giza, he ventures to complete pieces of what remains unknown to us about the use of such monuments at the time they were "functional". As he writes: "The hieroglyphics of the Book of the Dead are similar to the circuit symbols of computer memory banks or 'coded channels'."[244] Both are languages activated by energy: electric energy with the computer memory banks, and the energy of the reader connecting the signs and information (a primary electric energy) with the hieroglyphics of the Book of the Dead. Here we find again the confrontation between electrical circuits and symbolic circuits as it was at work in the collage *St John in the desert,* with the juxtaposition of the painting by Raphael and the

---

[243] Considering computer code, he tends to show what its correspondences may be in various areas of contemporary culture and in structures of the past, thus the relations he traces with hieroglyphs and ancient monuments. About these analogies between electronic computers and ancient monuments, it is good to recall that the first electronic micro-computer, personal computer, were developed in the beginning of the 1970s. The first electronic computers that appeared at the end of World War Two were colossal machines, rooms entirely "papered" with memory card, cathode ray tubes, and other electronic circuits. The ENIAC (Electronic Numerical Integrator Analyser and Computer) was revealed to the public on February 14, 1946 at the University of Pennsylvania, Philadelphia. As Smithson grew up, he saw such monumental machines shrink in space and become always more powerful. An electronic computer constituted a physical colossal environment. It was, as a consequence, easier than today to make analogies between such machines and the architectural structures of ancient monuments.

[244] In *The Artist as Site-seer, or a dintorphic essay* (1966-67), in *The collected Writings of Robert Smithson,* op. cit., p. 342.

electrical circuit diagrams. [245] The analogies he makes between contemporary computer systems and the complex system of tomb hieroglyphs in Egyptian burials echo McLuhan's declaration that we quoted earlier, according to which in the electric age, the remote pasts would resurface.[246] However, with these analogies Smithson reveals that in their capacity to store data, electronic meanders have a funerary aspect and he builds a pun of McLuhan's famous declaration stating now that "the medium is the mummy" — not any more the message.[247] Effectively, the binary code of computer program acts as an extreme reduction of things and words. Reduced to combinatory series of 0 and 1, encoded information literally reach an almost nullification.[248]

In parallel with this analogy between computer electronic meanders and Egyptian hieroglyphs, Smithson focuses in particular on the Great Pyramid: "an awesome computer". This focus is natural after a discussion on prime objects: the Pyramids of Giza are among the oldest prime objects still standing today, the only one of the seven wonders of the ancient world. But what is determinant in his approach to this prime object is what he makes appear of the prime words of which is built the word *pyramid*. In excavating the etymology of the word, he shows that the prime words are actually the matrix of the prime objects.

---

[245] Smithson pursues the analogy between computer circuits and hieroglyphic circuits as follows: "Binary numbers are in computer transferred into magnetic memory cells, and then packed into ordered layers; they form a silent dirge. Hundreds of thousands of cells will fit in less than a cubic foot of space. The memories run through Egyptian funerary sculpture. Simulated intelligence fabricates 'memories' that are neither dead nor alive; such coded information feigns the possibility of immortality." Ibidem, p. 342. We will get back to the development of these analogies in chapter 3 Part III of this dissertation. — Note that Walter De Maria also adresses the relation between computer code, energy and symbolic in many of his works: from *High Energy Bar* (1966) to *The Lightning Field* (1977) and later with such works as *360° I-Ching/64 Sculptures* (1981) or *A Computer Which Will Solve Every Problem in the World/3-12 Polygon* (1984).

[246] "Electric speed mingles the cultures of prehistory with the dregs of industrial marketers, the nonliterate with the semiliterate and the postliterate. Mental breakdown of varying degrees is the very common result of uprooting and inundation with new information and endless new patterns of information., In *Understanding Media*, op. cit. p.16. — Smithson develops these analogies in more than half of *The Artist as Site-seer*.

[247] We recognize here the gesture about which we dealt in Chapter 3 Part I: making the products of technology go back to a state of low energy. We will develop on the issue of memory and technology in our Chapter 3 Part III.

[248] In 1962 as he was still dealing with painting, Smithson seemed to propose the transformation of the painter into a program: "the day of the artist is very long, but the zeros must be painted at an average of one hundred per minute. Zeros within zeros for zeros by zeros. That was a way of painting it. Not very dynamic." In *The iconography of desolation*, in *The collected writings of Robert Smithson*, op. cit. Ibidem, p. 327. Passage already quoted in Chapter 1, p. 18. — In 1966 he shapes an encodement in binary code for his sculpture *The Cryosphere*, that he calls "block encodement". We will get back to this work in our Chapter 3 Part III.

2- Excavating the prime word and prime object relation: light measure in the abyss of language

a- Excavating the word

Focusing on the prime words of the pyramid enables to get an understanding of what this prime object could have meant at the time it was "functional". Indeed language is the first representational mean, it is thus a basic gesture to search the roots of the words of our contemporary languages in ancient languages. Smithson indicates well that these prime words may give the best clues about the function of the Great Pyramid when he expresses: "The purpose of The Great Pyramid was defined by the Hebrew centuries ago—the name they gave it 'Urimmiddin'='Light Measures', and the Phoenicians called it 'Baal-Middon'='The Lord of the Measures'. Greek 'Pyra'='beacon. 'Urin'='Purim'='Lights'. In Greek it becomes 'Pyra-midos', 'Pyra-mid'. A 'beacon of reflexions', and a 'monument of measures.' "[249]

Today with our high-tech machines, the term "light measure" is familiar. It is, however, in a sense that is quite remote from what we know as *pyramid*. A light meter is a device that measures the amount of light in a scene. It is present in many cameras to determine the proper exposure of a photograph, film or video. It calculates the amount of light necessary for the imprint we want in a determined time (time exposure). What do prime words *say* about the function of the *measure of light*? In what way is the measure of light interesting about the relationship between materials and language? It is very possible that Smithson got aware of that when reading the various books on the pyramids of Giza that we find in his library. He had about as many books on the symbolism of the sun and on the pyramids of Egypt as books on communication theory and he shows us how The Great Pyramid meets issues of cybernetics.[250] We will develop this problem by digging two historical meanings about the Great Pyramid of Giza.

---

[249] In *The Artist as Site-seer, or a dintorphic essay* (1966-67), in *The collected Writings of Robert Smithson*, op. cit., p. 341. — Going back to the Hebrew root, *Urim* means in fact both light as physical element and revelation, a theological concept, while *middin* carries the meaning of measure. The understanding of "light measure" thus oscillates between the material and the theological. The measure asserts a control on light, this material but impalpable element. Smithson only refers to light as physical element, now neglecting the theological side.

[250] In the beginning of the Chapter, we quoted some communication theory books read by Smithson. Among the books on the symbolism of the sun and the pyramids of Egypt, we can find in his library: Herdeg, Walter, *The sun in art : sun symbolism of the Past and the Present, in Pagan and Christian Art, Folk Art and Applied Arts*. Graphis Press, 1962 ; Edwards, I. E. S., *The Pyramids of Egypt*. Penguin, 1947; Emery, Walter B., *Archaic Egypt*, Penguin, 1963 — Smithson also had many other books on symbolism in art history (Ernst Cassirer) as in psychology (Carl Gustav Jung) or linguistics (Kenneth Burke).

b- Impalpable flow and massive solid: light measure as primary and theological communication device

A first explanation of the term "light measure" lies in the fact that when it was built The Great Pyramid was surfaced with white-polished casing limestone on which light reflected so powerfully that from far away, it appeared to be a triangle of light. The most massive and heavy architecture looked impalpable. You would get aware that the monument was firmly placed on the ground only when getting close enough to it. This optical illusion was reported by several Greek historians in Antiquity: Herodoctus who travelled in Egypt in 440 BC, Diodorus Siculus, and geographer Strabo who visited Egypt in 24 B.C.[251] The fact that the most massive architecture looked impalpable relates to the theological function that we more commonly know about the pyramid as a stairway to heaven for the soul of Pharaoh. The duality of the object, the heavy stone that looks impalpable because of the reflection of light on it shows how the pyramid acts as a crucial communication device, a relay for the soul between the terrestrial world and the *world beyond*. Natural light is here used as a communication device, an ancestor of electricity that however stays on the symbolic level. The form is intellectual and in that, as shows Smithson in *The Artist as Site-Seer*, it precedes the image.[252]

c- Light measure as observatory: scientific communication device

The reason why Smithson only refers to The Great Pyramid and not to the other pyramids of Giza is an important point that gives another hypothesis about the meaning of the "light measure". In contrast with the other pyramids of Giza, the Great Pyramid has no hieroglyphics in it, and has a descending passage, while the other pyramids only have an ascending passage. In the 19th century, Professor Charles

---

[251] In *The Lost Scriptures of Giza*, *Enochian Mysteries of the World's Oldest Texts*, Jason Breshears tells that "Strabo wrote that the Great Pyramid was '…like a building let down from heaven, untouched by human hands.' This is a startling statement, for in his day the complex was already twenty-seven centuries old." He then describes the optical illusion that the Great Pyramid could give from a far distance: "From a great distance the Great Pyramid appeared in Antiquity as a white mountain with perfect sides floating in the sky during the day. The surrounding desert landscape around the Giza complex and the evaporation during daylight hours visibly obscured the lower portions of the structure. From far away the pyramid appeared higher in the heavens. As one drew closer to the complex the closer the pyramids came to touching the ground until one approached close enough to see that the monument was indeed firmly placed upon earth." Jason Breshears, in *The Lost Scriptures of Giza*, *Enochian Mysteries of the World's Oldest Texts*, Book Tree, 2006, p. 74-75.
[252] The duality between the massiveness and the impalpability is essential to the approach that Smithson develops in his works. This issue is essential in *The Spiral Jetty*, where the considerations of the symbolic and the material forms also find a synthesis, we will develop this point in our Chapter 3 Part II. About the work of Donald Judd, he says "what seems so solid and final in Judd's work is at the same time elusive and brittle." In *Donald Judd*, *Writings*, p. 6.

Piazzi Smyth made the assumption that it was built as an astronomical observatory. In contrast with the other pyramids, it was more than a burial monument to the memory of Pharaoh. One of Smyth's arguments was that it was built in relation with the position of the stars: the position of the North Star was at the time on the axis of the descending gallery. Following the researches of other archeologists, Charles Piazzi Smyth also made popular that the sacred cubit used for the construction of the pyramid was of the same length as the British inch measurement. Smyth determined that the perimeter of the pyramid was 365, 242 Pyramid inches, which would correspond to the cycle of days in a year: 365, 2.[253] So these arguments give an understanding of the term "light measure" as the place from which one study the distance of the stars, an observatory. It is thus a scientific device of communication in contrast with the theological device of communication presented above.

Both interpretations of the function of the "light measure" confirm an essential point to Smithson: the visual is based on language. As he himself says: "The 'visual' has its origin in the enigma of blind order—which is in a word, language."[254] When one retrieves the root of words, one may retrieve the functions of prime objects. This point becomes essential with cybernetics as objects and words find a reduced form with the code, and then expand again to find back the materiality of objects and words. One should be able to retrieve the function of objects from their code reduction, but the meaning of this function may also drift, creating new functions to the object. Kubler says that prime objects have an "enigmatic origin"[255], Smithson shows that this enigma is due to the drift of language. Thus language is the "enigma of blind order", it is what precedes the visual. In other words, language is the basis for the "construction" of the visual. This point becomes fundamental for the plastic approach that Smithson develops in his essay *Towards the development of an air terminal site* published in *Artforum* in June 1967 and which appears as the continuation of the reflections introduced in *The artist as a Site-seer, or a dintorphic essay*.

---

[253] Smyth concluded: "the linear measurement of the base of this colossal monument, viewed in the light of the philosophical connection between time and space, has yielded a standard measure of length which is more admirably and learnedly earth-commensurable than anything which has ever yet entered into the mind of man to conceive." Quoted on : http://www.gizapyramid.com/articles/theories-why.htm

[254] *The artist as a Site-seer, or a dintorphic essay, Writings*, p. 342.

[255] *The Artist as a Site-seer, or a dintorphic essay, Writings*, p. 340.

PART TWO

ABSTRACTION IN THE AGE OF CYBERNETICS:

RECONFIGURATION AND DISMANTLING

PART TWO

CHAPTER 1

DUALITY OF PLACE IN SCULPTURAL PRACTICES AROUND
ROBERT SMITHSON IN THE 1960s:
FROM PLACE TO SITE AND VICE VERSA

Certain types of emptiness — focused zones whose aspects are qualitatively different from objects.

Robert Morris, *The present tense of space*[256]

There is no object there because there's not even any place there.

Robert Smithson, *Interview with Patricia Norvell*[257]

I think dialectics attacks all that assuredness you get with notions of the absolute one with the one, the unity, the Gestalt, all these things that everybody loves to contemplate because they're so sure and so complete. In Lenin you get this description of dialectics: he speaks of it as a 'development, so to speak, that proceeds in spirals, not in a straight line, a development by leaps, catastrophes and revolutions, breaks in continuity, the transformation of quantity into quality, inner impulses toward development imparted by contradiction and conflict, and various forces and tendencies acting on a given body or within a given phenomenon.

Robert Smithson, *Interview with Kenneth Baker*[258]

In the sculptural works of many artists in the mid-1960s, the consideration of place or site is essential. Artists such as Robert Morris, Richard Serra, Carl Andre speak of a

---

[256] Robert Morris, in *The present tense of space,* in *Continuous project altered daily: the writings of Robert Morris*, The MIT Press, 1995, p. 175.

[257] Robert Smithson, *Interview with Patricia Norvell*, June 1969, in *Recording Conceptual Art*, University of California Press, 2001, p. 130.

[258] In *Talking with Robert Smithson*, Kenneth Baker, in *Robert Smithson, Spiral Jetty: true fictions, false realities*, Dia Art Foundation/University of California Press, 2995, p. 155.

shift of attention from the object to the process of construction of sculpture. Morris describes it as a "shift in valuation of experience." The temporality of experience and the viewer's corporeality in a place or site become key elements of their general approaches in sculpture.

At that time, the emphasis on place and site appears as the answer to two main problems. The first is a reaction against the dogmas of the modernist aesthetic about the work's opticality and its immediacy of reception. The other relates to the more general issue of "dematerialization" emerging in all fields of society with the development of electronic technologies, what Marshall McLuhan calls the "electric age."

In February 1968, Lucy Lippard and John Chandler publish their essay *The dematerialization of the art object* in *Art International*. Their statements were immediately very criticized by many artists who argued that materiality is by no means lost but that it finds new characterizations. For example, Robert Barry's *Carrier Wave Pieces* (1969) deal with an invisible materiality in a place by filling rooms with radio waves. Some other works assert clearly and visibly their occupation of a place or site by focusing on the gravity of the material. However, in asserting the presence of the material, artists say that these art works are valid only in the physical and psychic relationship they establish with the viewer in this particular place or site. A subtle play is at stake between the massiveness of the sculpture and the emphasis on the ephemeral experience it provides to the viewer. Among these artists are Carl Andre, Richard Serra, Robert Morris, all three friends of Robert Smithson.

Their approaches converge on one essential point: each of them works in a way that can be described as dualist in relation to the site or place. However, while Richard Serra uses the term "site" and especially "site-specificity" to characterize his sculpture, Carl Andre speaks of "sculpture as place". We will ask this question: is there a conceptual distinction between a place-related sculpture and a site-related sculpture? Could we say that these artists actually work in a "zone" between these two concepts? What does this imply? How does Smithson work between these notions of site and place?

It will first be necessary to introduce the distinction proposed by art historian Daniel Arasse on the notions of site and place (I). We will then examine how the problem of

place in the work of Barnett Newman gives the essential basis for the issues developed by artists of the new generation (II). We will focus on the characterization of the dualities at work in the approaches of Carl Andre, Robert Morris and Richard Serra (III), and finally we will confront their approaches to that of Robert Smithson about the "zone", between place and site (IV).

I- FROM PLACE TO SITE: INTRODUCTION TO A DISTINCTION BY DANIEL ARASSE

1- The issue of place in the history of art and culture

Art historian Daniel Arasse spent much of his career focusing on the issues of place, site, location in the history of art and culture. His studies on the Annunciations in Italian Renaissance focus on how painters figure a place with the necessary symbolic clues in order to indicate the mystery of incarnation. Arasse also translated into French Frances Yates's major study *The Art of Memory*. This book develops how in Antiquity, the art of memory was invented for orators who had to memorize long discourses. It consisted in constructing imagined places, mental places that were to be filled with *imagines agentes*, active images, invented for their ability to be memorized and make the connection with the arguments to be developed in the discourse. Places in the art of memory are connected with arguments and words. Given the extent of his studies, Daniel Arasse brought a consistent understanding of the meaning of *place* at various times in the history of Western culture.

In an essay entitled *Du lieu au site —les zones de l'art aujourd'hui* (*From place to site —zones of art today)*, Daniel Arasse examines the relationship between place and site after visiting Anselm Kiefer's exhibition in the chapel of the Pitié Salpêtrière in Paris in the autumn 2000. Kiefer had conceived his paintings in relation to the place of the chapel, what we today call an *in situ* or *site-specific* work.
Retracing a history of painting, Arasse explains that as paintings traditionally served religion in places of worship, they were structured in relation to those places. Thus

ancient painting was closely tied to the places it occupied.[259] As theorized by Leon Battista Alberti in his *De Pictura,* easel paintings are characterized by "their autonomy with regard to the space that surrounds them and in which they build their own place"[260] They could thus remain the same, autonomous, while being dislocated from one place to another.[261] As Arasse notes, the art of the 1960s reverse the classical autonomy of the work of art in relation with its place. The work's place, the location in which it is settled becomes "the artistic experience of a site". What we most commonly referred to as "place" (lieu) for the location of a work of art, becomes — again— a site.[262]

2- Place and site distinctions from the 1960s on

Arasse decides to investigate on the relationship between place and site by focusing on the concepts implied by each term. He first traces the distinctions between place and site from their definitions in the dictionary and etymologies. As he sees it, both designate "portions of space", thus both enable to refer to a given location. However he shows that the notion of 'site' has always referred to "the configuration of a place" as "a piece of landscape (*paysage*) considered in relation with what it presents" or "the proper configuration of a place with regard to its precise destination". Thus site has more to do with the artefact than the natural. In contrast, the term "place" is always related with "the space occupied by the body" (Littré), keeping as Arasse notes, its Aristotelian concept as a piece of space whose limits coincide with the body occupying it.[263]

---

[259] "la peinture ancienne était, dans ses conditions historiques de conception et de réception, étroitement liée aux lieux qu'elle occupait." In Daniel Arasse, *Du lieu au site—les zones de l'art aujourd'hui*, revue d'esthétique n°39, 2001, p. 35.

[260] « leur autonomie au regard de l'espace qui les entoure et dans lequel ils instaurent leur lieu propre. » ibidem, p. 35.

[261] This was also as notes Arasse, its commercial success with the development of private collections, followed by the development of museums.

[262] He develops the point as follows: " Qu'il s 'agisse du land art, des pratiques in situ, des installations ou des interventions, l'opération de l'artiste consiste alors à abolir la relation spectatoriale classique : il transforme le spectateur (qui n'est supposément que regard) en « récepteur sensoriel » de l'œuvre en le confrontant à la présence d'une œuvre indissociable de son lieu — ou plus encore peut-être, en le confrontant au lieu de l'œuvre comme lieu de l'expérience artistique d'un site. Ces pratiques renversent la relation classique entre œuvre et lieu et invitent à préciser les relations qui peuvent exister entre les notions même de site et de lieu." Ibidem, p. 36.

[263] " L'histoire de la langue peut y aider puisqu'elle montre comment les deux termes ont des connotations proches mais diversifiées. Ils désignent tous deux des ' portions d'espace' et peuvent donc tous deux, faire allusion à un 'endroit' donné. Mais dès l'origine, ' site ' fait référence à la configuration d'un lieu – qu'il s'agisse, pour Littré, d'une 'partie de paysage considérée relativement à l'aspect qu'elle présente' ou, pour Larousse, de la 'configuration propre d'un lieu au regard d'une destination précise'. Le site tient ainsi autant sinon plus de l'artefact que du naturel (…) Le terme de lieu détermine autrement la 'portion d'espace' à laquelle il fait référence.

A place-related work questions the portion of space that it physically occupies and its relation to it. With site-related works, the focus shifts on the configuration of the portion of space that the work occupies. Arasse notes that this relation is indicated in the etymology of the latin term *situs*, past participle of *sino*, whose first sense was "to place", "to pose". He thus says: "When the spatial inscription of the work of art shifts from the issue of place to that of site, the work itself becomes the very act of placing: the intervention makes the work, whose memory is eventually preserved by documents (diagrams, photographs, films)."[264] He infers first that site-related works developing with interventions and configurations of a site have in some cases the effect of letting the presence of the work become only a secondary element of the work. He saw the latest manifestations of site-related works in website kind of works in which he finds that the material presence of the work is abolished. He thus notes that some site-related works have to do as a final form with issues of "trace" as documents (graphics, photos, films), residues of an ephemeral action or of an ephemeral presence in a place.

Daniel Arasse' s meditation is related to Anselm Kiefer's work at the Pitié Salpétrière where structuring his paintings in relation with the place of the chapel, Kiefer referred to the ancient experience of painting as closely related to the place it occupies. However after the exhibition, Kiefer's paintings where removed and went back to the artist's studio—this is what happens most commonly after any easel painting exhibition. Arasse analysed this tension about Kiefer's work: conceived for a particular place and reconfiguring it, but intended to be removed from it. He thus located Kiefer's approach in an interstitial "zone" between issues related to place and issues related to site.

The works of the American sculptors that interest us are far from Kiefer's pictorial approach. However this area that Daniel Arasse sketches between place and site to discuss the tensions of Kiefer's work will be useful to grasp the duality of some

si, dans un sens second, abstrait (Robert), le lieu peut, pour Littré, désigner 'un espace quelconque considéré sans aucun rapport avec les corps qui peuvent le remplir', son sens originel et toujours prégnant est celui de 'l'espace qu'un corps occupe' (Littré). Autrement dit, la notion de lieu conserve, jusque dans la langue moderne, la marque de sa conception chez Aristote : le lieu est le contenant du corps qui l'occupe ou la partie de l'espace dont les limites coïncident avec celles du corps qui l'occupe (Physique, 211, a-b). " Daniel Arasse, *Du lieu au site—les zones de l'art aujourd'hui*, revue d'esthétique n°39, 2001, p. 35.
[264] "dès lors que le travail de l'art (work of art) déplace la question de son inscription spatiale de la notion de lieu à celle de site, son œuvre (work of art) se confond avec l'acte même de placer, de poser : l'intervention est l'œuvre, dont la mémoire est éventuellement conservée par les documents (graphiques, photographiques, filmiques) portant un témoignage durable de l'acte artistique." Ibidem, p. 37.

sculpture works from the 1960-1970s. Before that, we first need to focus on an essential work about the issue of place and important for the artists in questions: that of Barnett Newman.

II- BARNETT NEWMAN: "SENSE OF PLACE" AND PHYSICAL SENSATION OF TIME—FROM PAINTING/BEHOLDER RELATION TO PLACE/BEHOLDER RELATION

1- Sense of place: dialogue between the painting and the beholder

Between the 1950-1960s, no artist has related, in the title of her/his works, as much about the issue of place as Barnett Newman did. *Not There-Here*, *Right here*, *Here…* Newman always insists about how he tends with his paintings and sculptures to give the viewer —the 'beholder' is his word— "a sense of place: that he know he's there, so he's aware of himself."[265] Each of his work is a "declaration concerning presence" notes art historian Yves-Alain Bois. As Newman expresses it in various occurrences, the relationship between the beholder and the painting is that of 'I' and 'you'. The beholder has to find his sense of place faced with the painting. This sense of place, he finds/creates it in relation with the Zip, the vertical line that splits the painting into two. As Yves-Alain Bois has shown, the Zip is a sign that summons the beholder to find her/his physical place in relation to the painting.[266] (Fig. 2. 1) Says Bois: "The zip, as he called the line, was its measurement. It gave you a yardstick to intuitively gauge its width."[267] He also notes that many of the titles of Newman's paintings and sculptures are words of the kind "that linguists call 'shifters', such as personal

---

[265] Barnett Newman, *Interview with Sylvester*, 1965, in *Barnett Newman: selected writings and interviews*, edited by John P. O'Neil, University of California Press, 1990, p. 257. —"One thing that I am involved in about painting is that the painting should give man a sense of place: that he know he's there, so he's aware of himself. In that sense he relates to me when I made the painting because in that sense I was there. And one of the nicest things that anybody ever said about my work is when you yourself said that standing in front of my paintings you have a sense of your own scale. This is what I think you meant, and this is what I have tried to do: that the onlooker in front of my painting knows that he's there. To me, the sense of place not only has a mystery but has that sense of metaphysical fact." — Elsewhere, he declares "Painting, or sculpture, is first and foremost for it create a sense of place, so that the artist and the beholder will know where they are." In Barnett Newman, *Response to the Reverend Thomas F. Mathews*, in *Barnett Newman: selected writings and interviews*, op. cit., p. 289.

[266] Newman introduced the Zip with the painting *Onement I* in 1948. (Fig. 1). Yves-Alain Bois writes: "Of course, the zip is still a simple vertical 'line', hence a ready-made sign preexisting in some absent stock of signs that - like all linguistic symbols - can be summoned and used at will. There is no escape, in other words, from the play of absence and deferral inherent in all forms of language; but at least the significance of the zip depends entirely on its coexistence with the field to which it refers and which it measures and declares for the beholder." In *Here to there and back: Barnett Newman in retrospect*, in *Artforum*, March 2002.

[267] He pursues: "It was also a commend to the beholder. Stand here, just in front of it, and you will know exactly where you are, it is the middle of your visual field just as it is the middle of the painting. (…) In bilateral symmetry, which relates so much to our bodily structure and to the way we organize our perception of the world, he had found a perfect mode of address."

pronouns or markers like now, here, right here". [268] For linguist Roman Jakobson, Shifter are words whose meaning cannot be determined without referring to the message that is being communicated between a sender and a receiver. With Newman's paintings and subsequently with his sculptures, "Here" has no meaning without the *I* and *you* relationship between the work and the beholder. [269] (Fig. 2. 2) Newman's works are powerful for the tension they create between our physical position and our psychological position in relation to the zip. Our physical position, the choice of this position in front of the painting or the sculpture makes us aware of our psychological position and the tension between both: how may I place faced with the zip, how may I not. *Not There-Here* ; *Right Here* (Fig. 2. 3 and Fig. 2. 4).

Newman never refers to any other spatial relation than the *I* and *you* relation between the beholder and the work. For the beholder, nothing else around is supposed to break this relation. As he expresses, his works are "hostile to the environment."[270] This aspect appears clearly in his text *Ohio* from 1949, when he tells that faced with the Indian mounds, the landscape around is like erased: "all other multiple feelings vanish like the outside landscape." The landscape has vanished because "Suddenly one realizes that the sensation is not one of space or of an object in space. It has nothing to do with space and its manipulations. The sensation is the sensation of time". In the same text, Newman then opposes "space" to "time", the first being common, the second private: "The love of space is there, and painting functions in space like everything else because of a communal fact — it can be held in common. Only time can be felt in private. Space is common property. Only time is personal, so important. Each person must feel it for himself. Space is the given fact of art but irrelevant to any feeling except insofar as it involves the outside world. (…) The concern with space bores me. I insist on my experiences of sensations in time — not the sense of time but the physical sensation of time."[271]

The physical sensation of time — the sensation of time as private property and the physicality of this sensation is what makes the presence of the beholder, thus the

---

[268] Yves-Alain Bois, *Here to there and back: Barnett Newman in retrospect*, *Artforum*, March 2002.

[269] Newman's series of sculpture *Here I* (1950-1962), *Here II* (1965), *Here III* translate the Zip from two-dimensions to three-dimensions: the title summons you to find your place in relation to it. I am here, you are here (Fig. 2). The Zips are in these sculptures taller than a human (*Here I* is 272 cm). In *Here I*, we have two "zips", *Here II*, three zips, *Here III* only one but much larger than those of *Here I* and *Here II*.

[270] "A painter friend, [Gerome] Kamrowski, said it well: he said my paintings are hostile to the environment." Barnett Newman, "Frontiers of Space: Interview with Dorothy Gees Seckler", in *Barnett Newman: selected writings and interviews*, op. cit., p. 250.

[271] Barnett Newman, in *Ohio*, 1949, ibidem, p. 174.

'sense of place'. The issue of "space" — of course there still is one in Newman's work — is created by a dual relation between *you* and *I*, the beholder and the work.

2- The lateral vision: opening of the 'sense of place'

Such a space, the distance between *you* and *I*, is of a metaphoric dimension. Art historian Thierry de Duve has shown that the making of a physical space always necessitates a relation between one place and another: "the construction of a space requires two places that are in relation with one another, one here and one there, so that each place — the one where I stand in flesh and bones — is at the same time the index of an absence: the absence of my statue at my scale. "[272]

This dual characterization of space is not the "outer" or "common" space that Newman targets in his text *Ohio*. De Duve's "index of an absence" resonates with *Not There—Here*, the title of Newman's painting. By placing myself faced with the painting and its zip, being present physically and psychologically, I always have at the same time an awareness of the fact that *I could have been over there* psychically — *not here*, the index of an absence.

Yves-Alain Bois has shown that little by little, Newman focused on the lateral extension of the canvas, "forcing the beholder to appeal to his peripheral vision." He notes that "this was no mean feat, in fact it was radically transforming the mode of pictorial reception that had remained basically unchanged in the West since the Renaissance." (Fig. 2. 5)[273] Bois focused on a staged photograph of 1958 where Newman and Dorothy Miller look at his *Cathedra* painting, remarking that "The beholders do not look straight, but obliquely (Fig. 2. 6). They are not focused on the Zips, their gaze is not frontal but lateral. Newman placed his wife there and said don't look at the Zip but next to it. Everything counts, every part and parcel of the painting is entitled to say 'here I am, you can't ignore me, even if you aren't aware of it, I change everything'. Which means that there is never any void, never any leftover. Or,

[272]In Thierry De Duve, *Ex Situ*, in Cahiers du Musée d'Art Moderne, n°27, printemps 1978. — " Il faut deux lieux se répondant l'un à l'autre pour faire un espace, un ici et un là, si bien que tout lieu — celui où je me trouve en chair et en os — est en même temps l'indice d'une absence, celle de la statue faite à mon échelle. "
[273] Bois noted that the focus on the lateral extensions of the canvas started after *Onement II* and that "the first major painting in which Newman explored his new understanding of laterality as a mode of human perception is *Abraham*." in Yves-Alain Bois, *"Here I am": on Newman's use of laterality*, on http://www.egs.edu/faculty/yve-alain-bois/articles/here-i-am-on-newmans-use-of-laterality/

which amounts perhaps to the same thing, we are entitled to say to the painting 'Here I am', even particularly if we do not take it frontally."[274]

In an essay entitled *Barnett Newman's The Wild: Painting as spatial intervention*[275], Kenneth R. Allan extends Yves-Alain Bois's analysis on the issue of the lateral vision in Newman's painting *The Wild* (1959). He focuses on how with this work lateral vision extends outside the painting. Giving a precise study of Newman's skinny painting of 1950, he states that "more so than most paintings, *The Wild* is context dependent (…) Given its extreme dimensions and the limitations of visual perception, *The Wild* cannot do otherwise than to produce a perceptually heightened surround as much as it attracts attention to itself."[276] (Fig. 2. 7 and Fig. 2. 8) *The Wild*'s dimensions are effectively 243 cm high x 4,1 cm wide x 4,1 cm depth, the Zip is slightly narrower than the canvas itself, encouraging the viewer to move on the lateral sides of the painting.[277] Allan remarks how *The Wild* appears to contradict the point that Newman was making about place with his other paintings and his declarations that his paintings were "hostile to the environment". The painting actually "organizes the site and surroundings where it is placed, functioning as an immediate structuring device."

In the 1960s, among the sculptors of the new generation of artists, the spatial relationship of a work to its site or place becomes an essential point of focus. Bois relates that when Donald Judd saw Newman's work, he said: "Oh wow, I can do this extension." He notes also that Richard Serra admitted that his work would not have been possible without Newman. The latter recognized their concerns when he stated in 1967: "the young sculptors (…) Some succeed, and some make designs, but some do make something where if you stand in front of it you know that you're there."[278] A "present tense of space", the title of an essay by Robert Morris characterizes in itself the approach of the artists in question, making perceptible their link with Barnett Newman. What does the "sense of place" become in the 1960s in sculpture? What

[274] Ibidem.
[275] Published in OCTOBER 143, Winter 2013.
[276] Kenneth R. Allan, *Barnett Newman's The Wild: Painting as spatial intervention*, OCTOBER 143, Winter 2013, pp.71-72.
[277] This issue was possible only if the painting was kept unframed, which was the case notes Allan when it was first exhibited.
[278] Barnett Newman, *Response to the Reverend Thomas F. Mathews*, in *Barnett Newman: selected writings and interviews*, p. 289.

about the physical sensation of time?

III- DISTANCE OPERATION IN THE 1960s SCULPTURE: BUILDING THE PLACE, THE SITE — BETWEEN NEWMAN'S LEGACY AND THE CRITIQUE OF MODERNIST THEORY

1- Behavioral duality in the experience of sculpture

In his essay *The present tense of space*, first published in the issue of Jan-Feb 1978 of *Art in America*, Robert Morris develops an acute characterization of the implications at stake in sculpture works that emerged in the 1960s-1970s. He formulates his approach as well as that of some of his fellow artists and friends working in the same direction.[279] He explains in the introduction that the works deal with "certain types of emptiness — focused zones whose aspects are qualitatively different from objects." This insistence on space, he says is "a state of being I will call 'presentness' ". Using this term, he tends to reverse the sense given to it by modernist criticism and characterizes the relationship to space with his sculpture as a psychological relation in which temporality is essential. On that point, his work shares a certain kinship with Newman's *I* and *you* relationship and his "physical sensation of time." The *I/you* relationship of Newman's work shifts with Morris's work into an *I/me* relationship. Like Newman's *I/you*, there is a back-and-forth between *I* and *me* that Morris understands in terms of perception/consciousness, temporal/static. Newman's "physical sensation of time" finds an echo in Morris's characterization of "the reality of time in art that is located in space."[280] Morris's *I/me* relation in sculpture actually translates in terms of perception philosopher George Herbert Mead's distinction on the *I/me*: "As there are two types of selves, the 'I' and the 'me', there are two types of perception: that of temporal space and that of static, immediately present objects. The 'I' which is essentially imageless, corresponds with the perception of space unfolding in the continuous present. The 'me', a retrospective constituent, parallels the mode of object perception. Objects are obviously experienced in memory as well as in the

---

[279] As he says: "The 1970s have produced a lot of work in which space is strongly emphasized in one way or another. I want to make some generalizations about the nature of this recent work, as well as work in the past that focuses itself spatially." In Robert Morris, *The present tense of space, in Continuous project altered daily: the writings of Robert Morris*, The MIT Press, p. 175.

[280] Robert Morris, *The present tense of space*, op. cit., p. 182.

present. Their apprehension, however, is a relatively instantaneous, all-at-once experience. The object is moreover the image par excellence of memory: static, edited to generalities, independent of the surroundings. The distinction is a thoroughgoing one dividing consciousness into binary modes: the temporal and the static." [281]

Thus the *I* /*me* relation deals with an oscillation between temporal/static, immediately perceived/reconstructed perception. This process is essential for the construction of the sculpture in a place or site. When Carl Andre characterizes his approach of "sculpture as place", he insists on sculpture's ability to build the place, Richard Serra says that it "reconfigures" the place. In *The present tense of space*, Robert Morris's vocabulary to characterize the contemporary sculpture of the 1960-1970s is very similar to that of Richard Serra at that time. Both use the terms "behavioural", "phenomenological", "psychological" to characterize their respective works.[282] These words clearly describe the focus on the experience of the beholder-surveyor of sculpture. Richard Serra says that his sculpture works create a "field force", telling that we perceive the space physically instead of optically.[283] It reconfigures the place or site in which it arises, enabling the *I*/*me* relation to disclose itself. The place is processed in such a way that it can neither be identified with any architectural framework nor traditional sculpture understood as an object on a pedestal.

2- Critique of modernist theory and anti-environment: unlivable sculpture

When Serra says that we perceive space physically rather than optically, he asserts a sharp opposition to modernism's guiding principle advocated by Clement Greenberg: opticality.[284] The forms of these works assert themselves against the finished objects of modernism. Object, as Morris notes, have to do with the *me*, what is static. With the object as a finished thing, there is judgment, while the immediate experience of

---

[281] In Robert Morris, *The present tense of space, in Continuous project altered daily: the writings of Robert Morris,* The MIT Press, p. 178.
[282] For example, while Morris speaks of "behavioral experience", Serra says "behavioral space".
[283] In an interview with Liza Béar in 1973.
[284] Morris clearly affirms that opposition to the introduction of *The present tense of space* when he writes about new works: "Modernist issues of innovation and stylistic radicalism seem to have nothing to do with these moves. More at issue perhaps is a shift in valuation of experience." In Robert Morris, *The present tense of space*, op. cit., p. 176.

the *I* is "raw" perception.[285] It is actually in the gap between these two modes that the place of sculpture gets built.[286] Thus the "field force" of sculpture is both physical (the arrangement of materials in the place or site) and psychic because of this back and forth between *I* and *me*, temporal and static, perception and judgment.

When reconfiguring a place or site, the works in question do not deal with the "real", but with an inner and personal temporality of experience (Fig. 2. 9).[287] In this, Serra characterizes his works as "anti-environments" or "counter-environments".[288] Works are not living places. On that point, he echoes Newman's declared hostility to environments and Dan Flavin's position with his situations. Flavin rejected the term "environment" precisely because of its association with living places.[289] After Serra's approach, anti-environment means that the work does not fit into a place but completely redefines it. This is not a decoration, or *decorum*, a word that derives from *decet* and means "it suits". Sculpture as "field force" clearly shows this unlivable aspect of the work of art: a place of tensions.

3- Kublerian analysis as critique of modernism

In *The present tense of space*, Morris builds what he himself calls "a kind of Kublerian historical development", searching in the past some models of artworks that also deal about "field force".[290] In this sense he sees Michelangelo's Medici Chapel and his staircase of the Laurentian Library as precursors of the site-specific works that emerge in the 1960-1970s. He describes them in terms of "field of forces" as if he were describing a contemporary sculpture. Thus about the personifications of the day and night in the chapel of Lorenzo and Giuliano de Medici he talks about

---

[285] He writes: "It might be said that the constitution of culture involves the burdening of the "me" with objects." Ibidem, p. 181.

[286] He explains the problem as follows: "the perception of space is one of the foremost 'I' type experiences. In the recall and reflection of that type of experience the 'I' is transmuted into the domain of the 'me'. Memory is the operative element here. The dimension of time keeps the 'I' and the 'me' from coinciding. In the relatively immediate perception of objects—encounter followed by assessment and judgment—there is little stretch or gap between the two modes. Spatial experience, requiring physical movement and duration, invariably puts a stretch between these modes." Ibidem, p. 182.

[287] Richard Serra says about his work *Delineator* "here the situation is more elusive" in Richard Serra, *Interviews, etc. 1970-1980,* The Hudson River Museum, 1980, p. 61.

[288] See Richard Serra, *Sight Point*, in *writings and interviews*, University of Chicago Press, 1994.

[289] The word "environment" is used by Allan Kaprow with his Happenings. See our Chapter 3 Part I on Flavin's rejection of the work "environment".

[290] In 1966, in the frame of a master's thesis in art (M.A.) at Hunter College in New York, Robert Morris already uses Kubler's model of analysis as developed in *The Shape of Time (1962)*. He analyzed Constantin Brancusi's work following this model. His thesis is entitled *Form-Classes in the Work of Constantin Brancusi*. Kubler's influence reveals determinant about the development of his plastic and theoretical practice. In Chapter 4 Part I, we saw how he works at reactivating Stonehenge's structure.

"strained placement" and "kinetic energy".[291] When he writes about the vestibule of the Laurentian Library that "the stair especially is elevated to the status of an almost independent sculpture — but it is both more and less than one", he actually expresses the difficulty to characterize the new sculpture: not sculpture as object in the classical and modernist sense, not architecture (Fig. 2. 10).[292]

Characterizing Michelangelo's work in terms of "spatial field of forces" clearly helps him sustain his critique of modernism.[293] Unlike the static modernist works put in a place regardless of the structure of this place, the new sculpture "occupies" the place, creating in it new structural relations. It must create a place, a new place. As he explains, the new works reveal the "hidden relationship" of modernist works to the container that is the gallery or museum room. They show how no space is neutral.[294] Linking the new sculpture to Michelangelo's Mannerism in the Laurentian Library and the Medici Chapel, Morris connects postures of two historical periods that tried to reveal the weaknesses of the dominant movement of the period: i.e. Mannerism in relation to the art of the High Renaissance and the emerging art of the 1960s in relation to modernism. Peter Hutchison and Robert Smithson had both made this link with two essays whose titles are very similar: *Mannerism in the abstract* by Peter Hutchinson (published in 1966), and *Abstract Mannerism* by Robert Smithson,

---

[291] "It is this strained placement that puts the figures in a new relationship to the space. They have been denied the dignity of the protective niche or the assertion of independence provided by a stable pedestal. Beyond their identities as figures and allegories they function as masses charged with potential kinetic energy wanting to slide out into space. Their implied force works counter to the general compression of the high well-like volume of the room as a whole. Above and beyond their nominal identity they function to establish a kind of field of force." In *The present tense of space*, op. cit., p. 184.

[292] He develops the point as follows: "By its very exaggeration it transforms the space and does not remain merely an eccentric architectural element. The space becomes 'sculptural' by the architectural details being overstressed, pulled out into the space as objects. Beginning here with another high narrow space, Michelangelo forced the architectural features, rather than the carved figure, to establish a spatial field of forces. Later Baroque work tended to accommodate and blend figuration or architectural features into undulating, deeply modelled spaces. But in these early Mannerist works, constantly questioning oppositions put under stress both objects and containment to establish such charged spaces." Ibidem.

[293] "Anytime the object has become specific, singular, dense, articulated, and self-contained, it has already succeeded in removing itself from space. It has only various visual aspects: from this side or that, close up or farther away—unless perhaps it is disposed in the space in some way that elevates the existential fact or placement to one of "occupation", thereby charging both the object and the space around it. Precarious balance for example was Michelangelo's solution for the already dramatic tomb figures in the Medici Chapel." Ibidem.

[294] "It is wrong to describe gallery and museum spaces as "spatial" in the sense in which I have been using the term. Such rooms are antispatial and nonspatial in terms of any kind of behavioural experience, for they are a holistic and as immediately perceived as the objects they house. These enclosed areas were designed for the frontal confrontation of objects. The confrontation of the independent object doesn't involve space. The relationship of such objects to the room nearly always has had to do with its axial alignment to the confines of the walls. Thus the holistic object is a positive form within the negative, but equally holistic, space of the room. The one echoes the other's form: a tight if somewhat airless solution. Claims for the independent object were actually claims for a hidden relation: that of the object to the three-dimensional rectilinear frame of the room. It might be said that such a space both preceded and generated the so-called independent object. Little wonder that the gestalt object when placed outside seldom works."Ibidem, p. 197.

written in 1966-67, kept unpublished during his lifetime.[295] The feeling of an "unbearable oppression", Panofsky's terms to characterize Michelangelo's staircase of the Laurentian library, is clearly reflected in the sensation of hazard we get when surveying a sculpture by Richard Serra with the apparent precarious balance of the massive Corten-steel plates. The staircase of the Laurentian Library is an anti-environment. This is the task of any sculpture that puts the viewer's corporeality on the hot seat: it offers no rest.

IV - FROM PLACE TO SITE IN THE 1960s: FROM SCATTER PIECES TO THE SCATTERED SITE

1- Between site and place: the "zone" – is a distinction possible in sculpture of the 1960-1970s?

We have seen how Daniel Arasse proposed a distinction between place and site after visiting Anselm Kiefer's exhibition at the chapel of the Pitié Salpêtrière. He explained how place-related works are linked with sustainability and materiality whereas site-related works tend to the ephemeral or to the loss of physicality. For Arasse, the most contemporary examples of site-related works are those using the internet material, taking the form of websites. He showed that some works oscillate between concepts of place and site, asserting both an anchor in a place and thought to reconfigure the place, but only for a limited period of time, thus relating ultimately to the notion of site. He said that such works act in a "zone" between place and site.[296]

Let us now confront the approaches of two sculptors, Richard Serra and Carl Andre about their respective relation to site and place. Richard Serra is one of the pioneers of so-called *site-specific* sculpture; he has largely defined its principles, while Carl Andre defends what he calls "sculpture as place". Whereas the first one mainly uses the word *site* and the other prefers the word *place*, let's see what differences exist between what Serra means by site and what Andre means by place.

---

[295] We will get back to the issue of Mannerism in our Chapter 1 Part III.

[296] Between the English language and the French language, the use of the term "site" is not exactly the same. The term is more widely used in English, especially to deal with non-physical issues that are a priori not materials: for example *"a site for reflection"* (we would say in French a "subject" or "theme" of reflection) can be used in parallel with "*a topic for reflection*" to describe roughly the same concept. The use of the term *site* in English confirms the sense that Daniel Arasse gave to it about the loss of physicality or the ephemeral aspect of site-related works.

Richard Serra defined site-specificity on the occasion of the destruction of his sculpture *Titled Arc* that he had built for the Federal Plaza in New York. "To remove the work is to destroy the work" he declared. [297] Note that talking about the work, Serra uses the term *site* while the sculpture was originally supposed to be sustainable: what about the distinction by Daniel Arasse? In Serra's site-specific work, we find again the essential point raised by Daniel Arasse about site-related works: it aims at reconfiguring the place, redefining it completely – regardless of the fact that the work is made to be permanent or for a limited time period.[298]

Carl Andre defends the word *place* when defining his "sculpture as place". Sculpture as place means that the work constructs the place: by reconfiguring the location on which it arises, it makes it become a work of art. The gesture is broadly the same as that of Richard Serra since the sculpture realizes a complete redefinition of the place. It is therefore actually a site-related type of sculpture (Fig. 2. 11).[299] However with the word *place*, Andre asserts gravity and materiality more strongly than if he had used the word *site*.

Reconfiguring the place, the works of Serra and Andre will be in most cases built for a limited time, sometimes perennial. Most of place-related or site-related sculpture oscillate between on one hand a presence and a strong materiality and on the other hand an ephemeral nature, a limited duration. The sculpture thus is in an in-between "zone" — a term used in another context by filmmaker Andrei Tarkovsky in his film *Stalker* to characterize a place that seems both material and unreal, between a concrete present and imagination.

---

[297] See Richard Serra, *Titled Arc destroyed*, in *Writings and Interviews,* University of Chicago Press, 1994. See also Douglas Crimp, *Redefining Site Specificity*, in *Richard Serra*, Hal Foster, Gordon Hughes editors, The MIT Press, 2000.

[298] Moreover, the term site in English conveys better than the word place the idea of movement, enabling also to encompass the social and political contexts to which Serra refers.

[299] The use of modular materials for his work leads him to an interest in what he calls "generic spaces." This point supports the fact that his sculpture is site-related. With generic space, sculpture somehow has an immaterial substance in that Andre's modules exist before he knows the place of sculpture: Andre has a broad idea of what the sculpture will consist in. He expresses it as follows: "I don't feel myself obsessed with the singularity of places. I don't think places are singular. I think there are generic classes of spaces which you work for and work toward. So it's not really a problem where a work is going to be in particular. It's only a problem, in general, of generic spaces: is it going to be the size of Grand Central station or is it going to be the size of a small room?" In *Carl Andre, Sculpture as place, 1970*, in *Cuts*, *texts 1959-2004*, edited with an introduction by James Meyer, The MIT Press, 2005, p. 183. When asked the question: "do you work with a location in mind?" he answers: "No, because I never work in the abstract to that extend. I never have been the kind of person who, let's say, work on drawing, then makes a model, then makes the model larger and larger, and then finally makes a piece. For me, my cliché about myself is that I'm the first of the post-studio artists (that's probably not true). But my things are conceived in the world. For me they begin in the world and the world is full of different kinds of spaces, different generic classes of spaces; inside gallery spaces, inside private dwellings spaces, inside museum spaces, inside large public spaces, and outside spaces of various kinds. There's always a location in mind not necessarily a specific one, but rather a location in scale." Ibidem, p.181.

2. Scatter pieces: perception from scratch

In 1966, 1967 and 1968, Carl Andre, Richard Serra and Robert Morris respectively developed works they called *Scatter pieces*.[300] Site-related works, they all reconfigure a place by scattering materials on the ground. Carl Andre's *Spill (scatter piece)* consists in 800 small plastic blocks randomly scattered on the ground, with also placed on the floor, the canvas bag that contained them (Fig. 2. 12). Richard Serra's *Scatter piece* in 1967 consists in latex rubber strips thrown on the ground in a room (Fig. 2. 13). Robert Morris's *Scatter piece* in 1968 (Fig. 2. 14 and Fig. 2. 15) is an arrangement of pieces of felt, copper, aluminum, zinc, brass, lead first shown in the warehouse of the Leo Castelli Gallery in 1969 together with his work *Continuous Project Altered Daily* (Fig. 2. 17), while his work *Threadwaste* was exhibited at the same time in the Castelli Gallery on 77th Street.[301]

About *Spill*, Andre expressed: "The particles are so small they don't make a coherent pattern. The small size dictates a less rigid form. The random spill makes the pattern."[302] Diane Waldman noted that they "evidenced a Pollock-like quality in their overall randomness." [303] Richard Serra's *Scatter piece* of 1967, latex rubber bands flung on the ground, was made at about the same time as his *verb list* (1967-1968), in which he listed "actions to relate to oneself, material, place and process" (to scatter, to arrange, to repair, to discard, to pair….) and a little before his *Splashing* for which Serra projected some hot lead fluid in the corner of a room (Fig. 2. 16).[304] Robert

[300] Artist Barry Le Va also realized glass *scatter pieces* from 1966 on. They consist in a superposition of glass plates broken by a pressure on the top of the plates, resulting in a dispersion of glass fragments. Here we only focus on scatter pieces made by artists close to Robert Smithson.

[301] The *Continuous Project Altered Daily* was a process work that was modified each day by Morris in front of the visitors while the *scatter piece* was arranged following some drawings by Morris.

[302] In *Carl Andre*, Cat. Exh. Guggenheim Museum, ed. by Diane Waldman, 1970, p. 20.

[303] Ibidem, Benjamin Buchloh noted that it was "the first minimalist work to introduce an actual process in sculpture" in Benjamin Buchloh, *Process sculpture and film in the work of Richard Serra*, in *Richard Serra*, ed by Hal Foster, Gordon Hughes, The MIT Press, 2000, p. 7. – He adds that it "was essentially determined by traditional conceptions of space and material, through its formal disposition was redefined each time the elements were scattered, thus directly integrating the process of its execution into the plastic appearance of the sculpture. Though *Spill* had introduced into sculpture Pollock's principle of confronting the viewer with a de-differentiated field in its all-over structure, this piece was to the same extent defined in a traditional way by the identical cubic elements that composed the field." — Andre retrospectively talks about his *Scatter Pieces* as follows: "In fact, my *Scatter Pieces* were created as a solution to maintaining the coherence of many small elements. Social entropy is another force disturbing the coherence of my small sculptures. The normal flow of foot traffic in a busy museum or gallery is a sufficient cause of disorder in my small pieces. Pedestals, barriers, bases and the like are utterly inappropriate for the display of my work." In Carl Andre, *Statement about Small Sculptures*, 2000, on http://www.paulacoopergallery.com/exhibitions/372

[304] Buchloh notes about Serra's *scatter piece* as well as his subsequent *Splashing* of 1968: "such manipulation of materials had probably done more than anything else to erode the traditional idea of the closed sculptural body and to substitute a spatial field for it, in the same way that the sculptural object as a body in space dissolved and was replaced by the visualization of the production process and the sheer presence of sculptural materiality." We see

Morris's *scatter piece* was arranged following his drawings. Among the 200 elements of the works, 100 are made of six metals of various shapes and dimensions. The 100 others elements are made of felt and are "cut so that each piece of felt corresponds to the shape and size of a counter part in metal. The 200 elements are then scattered on the floor, again, in a seeming random matter."[305] As the arrangement of *Untitled (scatter piece)* was left unmodified during the three weeks of the exhibition, *Continuous Project Altered Daily*, as the title indicates, was modified everyday by Morris in front of the visitors entering and leaving the space. In the gallery space of 77th street, *Threadwaste*, was a heap of various materials scattered on the floor: asphalt, copper, tubing, felt with some mirrors as only rectilinear forms, placed at random in the installation and stressing the indeterminacy and de-differentiated character of the spread of materials (Fig. 2. 18 and Fig. 2. 19).[306]

Scatter pieces were introducing process as element of the work as well as they were introducing the issue of a de-differentiated field of vision into sculpture. While Andre's *Spill* is still based on modular rigid elements, it is not the case of Morris and Serra's scatter pieces: not the case of Serra's *Splashing*, neither that of *Threadwaste* or *Continuous Movement Altered Daily*. Morris describes how scatter works deal with gravity and chance as opposed to forms projected in advance.[307] In April 1969, the month following his exhibition at Castelli, Robert Morris *Notes on sculpture part IV: beyond objects* was published in *Artforum*. There he clearly expresses the shift he was making from minimalist objects to the lateral spread works, linking their horizontality to a "landscape mode", showing how they deal with the "phenomenal fact of seeing

---

again how his gesture is influenced by Pollock's gesture, however the "all-over" has dislocated in the corner of the room and was "visually canceling that angle and thus dissolving the architecturally defined 'artificial' cubic space by eliminating its demarcation lines" notes Buchloh, ibidem, p. 11. — Serra refers to this work in terms of entropy, connecting it to Robert Smithson's *Asphalt Rundown*.

[305] As Jeffrey Weiss writes about the work, "the sets are generated according to chance calculations originally determined by coin toss plus numbers randomly selected from the New York city telephone directory (although the system is inconsistently applied); these govern the length, width, thickness, and number of bends (0, 1 or 2) for each unit."

[306] Whereas mirrors are traditionally used as symbols of representation in classical painting, Morris here uses them to accentuate the disorder.

[307] He explains scatter works as follows: "Random piling, loose stacking, hanging, give passing form to the material. Chance is accepted and indeterminacy is implied, as replacing will result in another configuration. Disengagement with preconceived enduring forms and orders for things is a positive assertion. It is part of the work's refusal to continue estheticizing the form by dealing with it as a prescribed end." in Robert Morris, *Antiform*, in *Continuous project altered daily*, op. cit. p. 46. *Antiform* was published about one year before his exhibition at Castelli Gallery, in the *Artforum* issue of April 1968.

the visual field" and how this lateral spread pursues a shift from the classical perspective vanishing point.[308]

In the period after World War II, Barnett Newman expressed that painting had to start again "from scratch". Faced with scatter pieces on the ground, it is perception itself that has no choice anymore than to start "from scratch". Morris expresses that this was "a kind of relief situation moved from wall to floor."[309] The focus on the visual field of perception was already at stake with minimalist works, we saw how it had its beginnings in the work of Newman. However, the radicalness of the scatter pieces with their lateral dispersion on the ground resides in the fact that there is no way to focus on any protruding object in the room anymore. In all these practices the term "reconfiguration" appears essential: the works reconfigure the site, transforming it structurally. Doing so they seek to realize a reconfiguration of perception.

3. The de-differentiated field of vision: Ehrenzweig, Morris, Smithson

In *Notes on sculpture part IV: beyond objects* Morris relates the scatter works to art theoretician Anton Ehrenzweig's use of the word "scatter" in terms of perception. Scattering and de-differentiation are two terms employed by Anton Ehrenzweig about unconscious perception: "I will speak of undifferentiation when referring to the static structure of unconscious image making, of dedifferentiation when describing the dynamic process by which the ego scatters and represses surface imagery."[310]

In his essay, Morris writes:

"The art under discussion relates to a mode of vision that Ehrenzweig terms variously as scanning, syncretistic, or dedifferentiated — a purposeful detachment from holistic readings in terms of Gestalt-bound forms. This perceptual mode seeks significant

---

[308] "The difference amounts to a shift from a figure-ground perceptual set to that of the visual field. (…) Fields of stuff that have no central contained focus and extend into or beyond the peripheral vision offer a kind of "landscape" mode as opposed to a self-contained type of organization offered by the specific object. (…) Previously, indeterminacy was a characteristic of perception in the presence of regularized objects — that is, each point of view gave a different reading due to perspective. In the work in question indeterminacy of arrangement of parts is a literal aspect of the physical existence of the thing." In Robert Morris, *Notes on Sculpture Part IV: Beyond Objects*, in *Continuous project altered daily*, op. cit. pp. 57-61

[309] In *The present tense of space*, op. cit., p. 194. — He follows: "A shallow, slightly more than two-dimensional 'down' space was developed that gave the viewer a kind of 'double entry' by allowing him to occupy two domains simultaneously: that of the work's shallow blanket of space, and those upper regions free of art from which he commands a viewpoint outside the work. The viewer's feet are in the space of art, but his vision operates according to the perception of objects. Some 'scatter' pieces occupied entire floor, the wall acting as limiting frame."

[310] Anton Ehrenzweig, *The Hidden Order of Art*, University of California Press, 1967, p. 19. The excerpt is quoted at the end of the *Interview with Dennis Wheeler*, *Writings*, p. 213.

clues out of which wholeness is sensed rather than perceived as an image and neither randomness, heterogeneity of content, or indeterminacy are sources of confusion for this mode. It might be said that the work in question does not so much acknowledge this mode as a way of seeing as it hypostatizes it into a structural feature of the work itself." [311]

To "scatter and repress a surface imagery": the expression resonated perfectly for Morris and his fellow artists. To repress the finished imagery of modernism and to scatter materials on the ground so that perception may start again from scratch.

Robert Morris was introduced to Ehrenzweig's thinking by Robert Smithson who was fascinated by the art theoretician, noting how "he's going into territory that hasn't really been dealt with."[312] He explains Ehrenzweig's dedifferentiation as follows: "There's another term that Anton Ehrenzweig uses — "de-differentiation"— which means that you can't differentiate anything. In other words, one discrete thing is always more or less ending up in another discrete thing." [313] Ehrenzweig defined de-differentiation and undifferentiation to characterize different states of the unconscious. We find again the distinction between static and dynamic. The static is the "undifferentiated" vision and the dynamic vision consists in a back and forth between dispersion and what Ehrenzweig calls "repression" of a picture: it is the process by which individuals form an image and stabilize it. It is thus close to Morris's *I /me* modes of perception.

Unlike Carl Andre, Robert Morris and Richard Serra, Robert Smithson did not realize any work entitled "scatter piece". However, what we could call the *scatter mode*, a modality of dispersion, is essential to the duality he sets up in his works from 1968 on, namely the site/non-site oscillation on which all of his subsequent works are based.

4- Smithson's "site" and the "dialectic of place" as the dismantling of place

The photographs Smithson makes during his trips on "sites", which are areas on the outskirts of town or sometimes far from a city, show a scattered aspect. On a site like

---

[311] In *Notes on sculptures Part IV*, op. cit., p. 61.

[312] Robert Smithson, *Interview with Dennis Wheeler*, in *Writings*, p. 207. He also says: "I lent my copy to Bob Morris—actually the quotes in his article (*Notes on sculpture part IV*, we note) are from my book. But Bob was certainly able to formulate his recognition of anti-form in terms of dedifferentiation." Ibidem.

[313] In *Interview with Patricia Norwell*, in *Recording conceptual art*, Univ. of Cal. Press, 2001, p. 131.

the one where he went near Bayonne, New Jersey for his non-site *Line of Wreckage*, we see an area with industrial materials, pieces of metal, empty metal cans or fragments of bricks walls: it seems to be a large dump (Fig. 2. 20). The site where he went near Oberhausen in Germany leaves us with the same impression (Fig. 2. 21-26). No object is highlighted in relation to another, the grey photograph reinforces this de-differentiated appearance. On sites, everything is scattered and unlimited.

Ehrenzweig's reference to the unconscious is very important to Smithson about his sites. He uses another of Ehrenzweig's expressions related to the process of unconscious perception: "low level scanning", using it to characterize the way he perceives a site when surveying it. "Low level scanning" describes a dispersed focus during which we perceive (scan) and select items by intuition rather than by any rational or logical way: "like a dog" says Smithson. The materials he chooses on the site are thus unconsciously selected, and he then brings them in town to set up the type of work for which he is famous: the non-site. The non-site shown in the museum or gallery room is composed in part of the materials he gathered on the site. In his first non-sites like *A Nonsite (Pine Barrens, New Jersey)* or *A Nonsite (Franklin, New Jersey)*, both of 1968, he places the site-materials in metal bins he had built. Materials are confined in containers, yet projecting us to the scattered mass from which they were extracted on the site. "Containment and scattering", he borrows these terms again from Ehrenzweig, telling how "it's the tension between the two things that essentially manifests itself in fascinating art"[314]

The duality at stake in Ehrenzweig's study between the unconscious (scattered perception) and the conscious (contained perception) resonates perfectly with the oscillation Smithson sets up between sites, unlimited outdoor locations, and the non-sites, works built for the gallery or museum room.

Non-sites are complex works composed of raw materials picked up by Smithson on the site, metallic containers in which these materials are deposited and a map or aerial photograph of the site where the materials were picked up. This latter is cut following the shape of the metallic containers and hung on the wall of the room.

---

[314] "There's a sort of rhythm between containment and scattering. It's a fundamental process that Anton Ehrenzweig has gone into. I think his views are very pertinent in that he talks about this in terms of containment or scattering." in *Fragments of a conversation*, edited by William Lipke, in *Writings*, p. 190. And: "There's this interaction between the scattered and the contained. It's the tension between the two things that essentially manifests itself in fascinating art, I think." in *Interview with Dennis Wheeler, in Writings*, p. 199.

We will develop the detailed analysis of the concept of non-site in the next chapter, but let us note for now that in front of a non-site, the viewer is faced with two types of "information" relating to the site: the raw and concrete information of the site-materials, and an "abstract" or constructed information: that of the map or aerial photograph that provides an overview of the dispersed area where Smithson went. The visitor tends to project to the site, but because of the fragmentary nature of information and due to the shifts of scale between the map and the raw materials in the containers, s/he gets ultimately thrown back to her/his own position as spectator in the museum room.

There is a mental movement of projection to the site, which is almost immediately followed with a return to her/his physical position in front of the containers with the raw materials of the site. Smithson calls that mental movement of back and forth a "dialectic of place": "I was sort of interested in the dialogue between the indoor and the outdoor (…) I developed a method or a dialectic that involved what I call site and non-site. The site, in a sense, is the raw physical reality—the earth or the ground that we really are not aware of when we are in an interior room or studio or something like that—and so I decided that I would set limits in terms of this dialogue (it's a back-and forth rhythm that goes between indoors and outdoors), and as a result I went and instead of putting something on the landscape I decided it would be interesting to transfer the land indoors, to the non-site which is an abstract container. (…) so that in terms of my own work you are confronted not only with an abstraction but also with the physicality of here and now, and these two things interact in a dialectical method and it's what I call a dialectic of place."[315]

Smithson does not use the term "dialectic" in the classical Hegelian sense, with the thesis, antithesis, and synthesis. He is only interested in the movement between thesis and antithesis, the oscillation between two divergent states. When he explains his use of the term "dialectic", he refers to Lenin: "I think dialectics attacks all that assuredness you get with notions of the absolute one with the one, the unity, the Gestalt, all these things that everybody loves to contemplate because they're so sure and so complete. In Lenin you get this description of dialectics: he speaks of it as a 'development, so to speak, that proceeds in spirals, not in a straight line, a development by leaps, catastrophes and revolutions, breaks in continuity, the

[315]In *Earth, Symposium at White Museum*, Cornell University in 1969, *Writings*, pp. 178- 187.

transformation of quantity into quality, inner impulses toward development imparted by contradiction and conflict, and various forces and tendencies acting on a given body or within a given phenomenon. "[316]

The site/non-site "dialectic" distinguishes itself from the works of his fellow artists about the issue of dispersion. Instead of realizing a dispersion of materials in the confined space of the room of the gallery or museum, Smithson creates a dialectic between a movement of dispersion or expansion which is a mental projection to the site and a movement of contraction which is a return to the physicality of the material that is confined in the containers in the room.

In Serra, Andre and Morris's approaches, sculpture builds the place or site, inside or outside, with an *I/me* perceptual duality in the experience the work. Smithson's "dialectic" has nothing to do with such a duality for the construction of a place or site. With the non-site, he deals with the shift of scale between the fragments of raw materials in the bins and the map relating to the site. There is such a distance and heterogeneity between these two "information" relating to the same point that their confrontation creates a "collision", term that Smithson frequently uses. The shift of scale is the essential point on which his non-sites differ from the works of his fellow artists, enabling, as he considered, to truly get away from conventional issues related to objects.[317] Smithson actually realizes a dismantling of any possibility to construct the sculpture. One is led to project "there", on an external site rather than focusing on the immediate physical experience of sculpture on a given location.

Smithson characterizes his approach as an "unmaking".[318] He shows that this "dialectic of place" actually cancels the "place": "you're really going from someplace

---

[316] In *Talking with Robert Smithson*, Kenneth Baker, in *Robert Smithson, Spiral Jetty: true fictions, false realities,* Dia Art Foundation/University of California Press, 2005, p. 155.

[317] About scatter pieces works, Smithson notes: "I don't see any extension of scale in a lot of work that simply attack the limit within a room. If you're going to take a lot of material and throw it all around a room, the material is always going to hit up against the wall. (…) certain works try to give the impression that they're unlimited in an interior space, say a room, but that's just a promise that doesn't seem to have any validity outside the room itself. So that there's no real extension of scale taking place simply by spreading materials inside a room." *Interview with Patricia Norvell*, June 1969, in *Recording Conceptual Art*, University of California Press, 2001, p. 126.

[318] *"A lot of my pieces come out of an idea of covering distances. Distance has a lot to do with the scale between the pieces. It's a succession of pieces that cover large landmasses. So that you might say that there's a certain degree of unmaking in the pieces rather than making."in* Interview with Patricia Norvell, *June 1969, in* Recording Conceptual Art, *University of California Press, 2001, p. 125.—He follows on the dismantling aspect of his works: "I first got interested, I guess, in places by taking these trips and just confronting the raw materials of particular sectors and considering the raw materials of the place before it was refined into any kind of steel or painting or anything else. So that my interest in the site was really a return to the origins of material. A sort of dematerialization of refined matter was one of my interests. Like if you took a tube of paint and followed that back to its original sources, you'd find that it was in a rather raw condition. So my interest was in juxtaposing, let's say,*

to no place and back to no place and back to someplace. And then to locate between those two points gives you a position of elsewhere, so that there's no focus. This outer edge and this center constantly subvert each other out, so that you really have no destinations. There's a suspension of destination."[319]

At last, unlike the approaches of his fellow artists, there is no "bond" to a place, occupying it and reconfiguring it. He says that with his nonsites: "There is no object there because there's not even any place there." [320] The oscillation between a place (the museum room) and another place (the site towards which one projects mentally) cancels the very idea of place. While his fellow artists tend with site or place-related works to bring down the object as a finite thing, Smithson annihilates the very place of the work. What is left then? We will see the outcome in the next chapter by focusing on the influence of cybernetics in the conception of his idea of nonsite.

---

the refinement of painted steel against the particles and rawness of matter itself. Ah, also I think that it sets up a dialogue between interior exhibition space and exterior sites. In other words, there is a confrontation with an unlimited sector outside." Ibidem, p. 126.
[319] Ibidem, p. 131.
[320] Ibidem, p. 130.

PART TWO

CHAPTER 2

NONSITE TELEVISION CYBERNETICS

I wasn't interested in filling the gallery with another grid. I was interested in capturing the sense of expanse and remoteness outside of the room space. The experience of my work had to take place both outdoors and indoors. I got interested in the earthworks as a result of that airport project. The nonsites came as a result of putting large scale out on the edge of the airfield, and then I thought, how can I transmit that into the center? The terminal was there, yet there was no evidence of these things out there, so I thought of putting television out there and transmitting these things back in, and telescopes. That became a kind of miniature universe, that sort of fit into my concerns of mapping. And the converging lines, the polarities led into an interest in three-dimensional physical perspective.

Robert Smithson, *Interview with Dennis Wheeler* [321]

PAUL CUMMINGS*: One thing you never finished discussing was the Dallas-Fort Worth Airport.* ROBERT SMITHSON*: Well, they eventually lost their contract. The pieces were never built. Although there was an interest, I don't think that they fully got out of me what they thought they would have gotten. But as far as my relationship there goes, it was very worthwhile for me because it got me to think about large land areas and then, I think to a great extent the dialogue between the terminal and the fringes of the terminal – once again, between the center and the edge of things – has been a sort of going preoccupation, part of the dialectic between the inner and the outer. That kind of range of thinking preoccupies me quite a bit.* [322]

---

[321] Robert Smithson, *Interview with Dennis Wheeler*, *Writings* pp. 211-212.
[322] In *Interview with Paul Cummings*, Robert Smithson and Nancy Holt Papers, Archives of American Art.

Between July 1966 and June 1967 Robert Smithson worked as a consultant for architects Tibbets, Abbot, McCarthy and Stratton (TAMS) on a project for the Dallas-Fort Worth airport, Texas.[323] Although his proposals could not be realized, as the architects did not win the contract, he explained that the project was very stimulating in terms of plastic reflection, even essential as he developed his concept of nonsite after the reflections he conducted on what could be an "aerial art" in the frame of this project. As noted by art historian Larisa Dryansky, "with this opportunity, Smithson was indeed introduced to the professional use of maps of all kinds: plans, land surveys, aerial views." [324] Art historian Ann Reynolds also notes that at the time of his collaboration with TAMS on the airport terminal project, Smithson was reading some texts recently translated from French authors related to structuralism.[325] The project for the air terminal is Smithson's first attempt to think an art that takes into account structuralist principles in a large scale.

Smithson develops this project through mainly four texts: first in a text entitled *Proposal for earthworks and landmarks to be built on the fringes of the Dallas-Fort Worth regional air terminal site*, written between 1966 and 1967 and kept unpublished during his lifetime, then in *Towards the development of an air terminal site* published *in Artforum* in June 1967, the month during which his collaboration with TAMS ended, *Aerial Art*, published in the *Studio International* issue of February-April 1969, and *Untitled (Air Terminal-Windows)* of 1967, a short text kept unpublished during his lifetime.

Between these texts and the willingness to publish *Aerial Art* almost two years after his work on the air terminal project, we see how this reflection was important to him and how he wanted to further develop the idea of aerial art that he sets up with this project. In 1972, he writes that "there should be artist-consultants in every major industry in America."[326]

His text *Towards the development of an air terminal site* swarms with analysis and openings. The two essential lines are the analysis of what could be an air terminal in structuralist terms and the characterization of a structuralist art, namely an art based on language. *Aerial Art* published in 1969 is more concrete: it is devoted to his project

[323] One of the architects of TAMS proposed Smithson to collaborate on that projet after listening to him at the symposium *Shaping the environment: the Artist and the City* held on June 17th, 1966 at Yale University.
[324] Larisa Dryansky, *La carte cristalline*, in Cahiers du Mnam, hiver 2009-2010, p. 67.
[325] See Ann Reynolds, in *Robert Smithson: Learning from New Jersey and Elsewhere*, MIT Press, 2003, p. 134.
[326] In *Proposal*, 1972, *proposal for the reclamation of a strip mine site in terms of Earth Art and its relation to the Ohio State University conference on art education,* in *Writings* p. 380.

for Fort Worth, for which he had proposed to his fellow artists and friends Carl Andre, Sol LeWitt and Robert Morris to each think a work that would be located outside the air terminal.[327] Between the publication of *Towards the development of an Air Terminal Site* and *Aerial Art*, Smithson realizes in 1968 his first nonsite, *A Nonsite (An indoor earthwork)* also known as *A Nonsite (Pine Barrens, New Jersey)*, shown in the occasion of his second solo exhibition at the Dwan Gallery.

While his project for the air terminal is technologically ambitious, planning to use television monitors in the air terminal which would transmit feedback video views of each work of art located outside the terminal, his nonsite in 1968 does not use the technology of television, however *tele-vision* — literally "distance seeing" — is an essential principle of the work. In 1969, Smithson creates a work specifically for the television broadcasting. Very different from the project for the air terminal, it is his participation in the exhibition *LAND ART* organized by Gerry Schum, that was broadcasted on the German station *Sender Freies Berlin*. Subsequently, Smithson did not develop any other work involving the technology of television.

What are the challenges of the structuralist project that Smithson develops for the Fort Worth-Dallas air terminal? What are the technological implications? Why does Smithson ultimately leave aside the television technology, keeping only its structural principle for his subsequent works?

I - AERIAL ART: FROM TWO DIMENSIONS TO THREE DIMENSIONS AND VICE-VERSA

1- The project for the Dallas-Fort Worth air terminal

On a master plan of the Fort Worth airport designed by TAMS architects in 1966, Smithson schematically draws the proposals for four thin earthworks outside the terminal building on areas unusable for the aircraft's traffic (Fig. 2. 27). He writes "Low earthworks no higher than 5 feet'' and below "this is feed back view to central museum."[328] All works are to be seen from the air by passengers arriving or departing

---

[327] The text *Aerial Art* is a development of his unpublished text *Proposal for earthworks and landmarks to be built on the fringes of the Fort Worth-Dallas regional air terminal site*. In the latter text he describes the work proposals of his fellow artists Robert Morris, Carl Andre, Sol LeWitt, as well as his own sculpture project.
[328] These earthworks should be maximum five feet high, or about 152.4 cm, which is indeed very low.

from the air terminal.[329] Beside each of the works, Smithson draws a point for the location of a camera.[330] In the terminal, called "terminal area" on the plan, he plans television monitors that would show in feedback the views from the cameras placed beside each earthwork outside the air terminal building. With a word pun, he renames the terminal area, "terminal museum." The project to make outdoor works coordinated with television monitors inside the "museum" effectively announces the end of the modernist museum. Such a museum would not provide a direct experience of the works, the *presentness* so strongly defended by art historian Michael Fried. Here we would be faced with video images of works that are absent, a kind of negative museum where one is faced with the presence of an absence.

Smithson produced a multitude of drawings and notes throughout his reflection for an aerial art. After the master plan project, he proposes an asphalt sculpture in spiral (*Asphalt Spiral*), a water pool in spiral (*Spiral Reflecting Pool*), a mirror spiral (*Aerial map proposal for Dallas Fort Worth Regional Airport*), as well as some *Earth Windows*, onshore windows with an underground electric lighting that could be seen from an aircraft (Fig. 2. 28 to Fig. 2. 31).[331]

In his work with TAMS, Smithson develops a structuralist analysis of the site and the terminal building, first formulating a new approach to what "taking an aircraft" means. He explains that one must get rid of the "old rational idea of visible speed". Thus in *Towards the Development of an air terminal site*, he describes an aircraft not as an object anymore, but as a crystal, and a crystal is characterized precisely by the fact that it is all structure. From the object commonly viewed according to "the old idea of visible speed" one shifts to a structure whose purpose is to provide shifts of dimensions. Smithson writes:

"Our whole notion of airflight is casting off the old meaning of speed through space, and developing a new meaning based on instantaneous time. (…) the movement of air around the craft is no longer visible. (…) If an aircraft discloses itself on an instant network of time, the result is an immobilization of space. This immobilization of space becomes more apparent if we consider the high altitude satellite. The farther out

[329] There are a "spiral of blue rocks", a "rectangle of yellow rocks", a "square of red rocks" and five circles of "low mounds of white sand".
[330] For the five white mounds, there is one camera per mound.
[331] For a study of *Aerial Map*, see Larisa Dryansky, *La carte cristalline*, in *Les cahiers du Mnam*, hiver 2009-2010, pp.73-74. For a study of the *Earth Windows*, see Ann Reynolds, in *Robert Smithson, Learning from New Jersey and Elsewhere,* MIT Press, 2003, pp. 152-156.

an object goes in space, the less it represents the old rational idea of visible speed. The streamlines of space are replaced by a crystalline structure of time."[332]

Smithson tends to highlight the perceptual issues of the shifts of scale we experience when taking the plane. In the structure of an airport, we go from the three-dimensional view in the air terminal and on the ground in front of the aircraft to the two-dimensional aerial view when the aircraft departs — or vice-versa if the aircraft arrives, appearing out of the clouds until its landing in the air terminal. The works proposed by Smithson for the air terminal are pretexts, motives to highlight how perception processes in the structure of the air terminal building. The works are markers that aim to raise an awareness of these shifts of dimension. Smithson later called this passage from one dimension to another a "range of convergence". A dimension converges into another, it transforms to become the other.

It is striking how Smithson's concern about this infinitesimal and imperceptible moment in the transition from one dimension to another is similar to Marcel Duchamp's *inframince*. Similarly, the airplane's "immobilization of space" echoes the "static image of movement" (*l'image statique du mouvement*) sought by Marcel Duchamp with his *Nude Descending a Staircase* (1912), which Duchamp explains saying that "movement is an abstraction" built by the viewer's perception.[333] Like Duchamp, Smithson searches for a new way of looking at things, which implies a rotation of the common sense. Duchamp illustrated it as follows: "when a clock is seen from the side, it no longer tells the time".[334]

With the air terminal project, the passenger will experience in a way or the other (departing or arriving at the terminal) a two-dimensional view of the works, a three-dimensional view, and in the terminal building (*Terminal museum*), the monitors will confront her/him with the two-dimensional view of three-dimensional works located outside. The two-dimensional image of the three-dimensional work coincides neither with the view of the three-dimensional work s/he sees from another point of view, nor with the aerial view of this same work that s/he has seen or will see. The confrontation of these different dimensions creates a collision.[335] We understand that

---

[332] In *Towards the development of an air terminal site, in Writings,* pp. 52-53.
[333] He adds that it is "*l'œil du spectateur qui l'incorpore au tableau*".
[334] "*quand une pendule est vue de côté, elle n'indique plus l'heure.*" We will get back and develop on Smithson and Duchamp's connections in our Chapter 4 Part II and in our Chapter 4 Part III.
[335] Smithson later uses the term "collision" to describe the shock created by the encounter of two dimensions with the *nonsites*: "I mean there is no escape from the physical. Nor is there any escape from the mind. The two are I guess, on a constant collision course." In *Interview with Patricia Norvell,* in *Recording Conceptual Art,* op. cit. p.

we actually synthesize the various views to build the whole object mentally. The construction of the object is artificial.[336]

Both in *Towards the development of an Air Terminal Site* and in *Aerial Art*, the works are dealt with as being intellectual constructions. In *Aerial Art*, Smithson even writes that the works could be "not seen at all".[337] This "not seen at all" shows that the invisible works aim at revealing the structure of the terminal, what perceptual issues this structure involves. In *Towards the development of an air terminal site*, Smithson quotes Roland Barthes's *The structuralist activity* (1963) which was translated and published in English in 1967.[338] He quotes Barthes's famous expression to characterize structure, "the simulacrum of the object" as "intellect added to object."

Note that Roland Barthes's *The structuralist activity* is a fantasy about structuralism, not his theory: this is what indicates the title itself connecting structuralism to surrealism. Like Barthes, Smithson is interested in structuralism for the new worldview it allows. In *The structuralist activity*, Barthes writes that "what is new is a mode of thought (or a "poetics") which seeks less to assign completed meanings to the objects it discovers than to know how meaning is possible, at what cost and by what means."[339] What matters is to show the "*functional*" rather than the object, and the functional is invisible. Thus Smithson's work proposals for the air terminal site being "not seen at all", either buried as Sol LeWitt's proposal or on the surface of the site, is an essential principle to Barthes's view on structuralism.

---

131. We will get back to what he means by "mind and matter", he connects intellect to two-dimensionality, matter to three-dimensionality.

[336] We can again connect Smithson's approach to that of Duchamp on that point. Catherine Perret explains how the *Grand Verre* acts as a "hinge for the gaze", « un gond pour le regard », enabling to realize a "vitual" four-dimensional image, a mental image. See Catherine Perret, *Les porteurs d'ombre — mimésis et modernité*, éditions Belin, 2001, pp. 138-139. We will develop this point in our Chapter 4 Part II.

[337] In *Writings*, p. 116. — "The outer limits of the terminal could be brought into consciousness by a type of art, which I will call aerial art, that could be seen from aircraft on takeoff and landing, or not seen at all." — The "not seen at all" is to be taken literally: for the air terminal project, Sol LeWitt proposes a work to be buried, a non-visual "sub-site" work under the site, while Carl Andre proposes a crater "formed by a one-ton bomb thrown 10 000 feet in height." Or an acre of blue bonnets (state flowers of Texas." (In *Aerial Art, Writings*, p. 117). Only Smithson and Morris's works can be seen by the planes departing and arriving: "Robert Smithson and Robert Morris will build forms that will be visible to aircraft as they take off and land. Sol LeWitt and Carl Andre will provide works that will deal with the 'sub-site', and exist as underground landmarks." In *Proposal for earthworks and landmarks to be built on the fringes of the fort worth Dallas regional air terminal site*, *Writings*, p. 353.

[338] Barthes's essay translated by R. Howard as *The structuralist activity* was published in *The Partisan Review* in the winter 1967. On that point, see Larisa Dryansky, *La carte cristalline*, cahiers du MNAM, hiver 2009-2010, note 43, p. 84.

[339] Roland Barthes, in *L'activité structuraliste*, in *Œuvres complètes*, tome II, Seuil, 2002, p. 471. — « ce qui est nouveau c'est une pensée (ou une poétique) qui cherche moins à assigner des sens pleins aux objets qu'elle découvre, qu'à savoir comment le sens est possible, à quel prix et selon quelles voies. »

The passage from one dimension to another, from two-dimensions to three-dimensions when arriving at the airport terminal or vice versa when leaving it, is an almost unnoticeable moment. This is precisely what interests Smithson. We cannot visually grasp when the convergence of dimensions exactly occurs. This convergence can only be highlighted by the invisible structures of Smithson's aerial art work proposals, enabling a perceptual awareness to occur between the departure of the aircraft from the terminal and their vanishing in the clouds — or the coming out from the clouds and arrival at the terminal. The works for the air terminal are not only invisible[340], they are works that "disappear": they are valid as works only during the shift of scale in the transition from two to three dimensions. In *Towards the development of an air terminal site* Smithson imagines how each stage of the construction of the terminal could be considered a work of art: "*Land surveying and preliminary building, if isolated into discrete stages, may be viewed as an array of artworks that vanish as they develop.*" [341] The work disappears in the very process of construction. The survey can be considered as work to the extent that it creates a shift of dimension: it transforms a three-dimensional area into two dimensions, a map, i.e. an artificial object. Smithson makes this point clear when he describes the air terminal itself as a kind of rotating crystal, whose various facets disclose themselves, continuously revealing new views as a maze by Jorge Luis Borges: "the process behind the air terminal endlessly plans and replans its concessions, agencies and facilities from masses of information. Here unit terminals are not conceived as trip terminus points. Here no gate position has a unique location."[342]

The aircraft and the terminal such as described by Smithson join the 'new category of the object" of which Roland Barthes speaks in *The structuralist activity*: "First of all, it manifests a new category of the object, which is neither the real nor the rational, but the *functional*, thereby joining a whole scientific complex which is being developed around information theory and research."[343] Neither real, nor rational: the *functional* reconstitution of the object is a completely artificial activity. Indeed in *Aerial Art* Smithson uses the term "artificial" to characterize the temporal structure created in

---

[340] Some of them, at the same time, there is little chance that we understand immediately that the visible ones are works if we stick for example to the pile of white sand of the first diagram.

[341] In *Writings*, p. 58.

[342] *Towards the development of an air terminal site, Writings*, p. 57. — Smithson quotes Borges a little earlier in the text: " '… I saw the mirrors in the planet and none reflected me…' (Borges)" p. 54.

[343] In Roland Barthes, *L'activité structuraliste*, op. cit., p. 470. « D'abord il manifeste une catégorie nouvelle de l'objet qui n'est ni le réel ni le rationnel, mais le *fonctionnel* rejoignant tout un complexe scientifique qui est en train de se développer autour des recherches sur l'informatique »

the terminal: "Aerial art can therefore not only give limits to 'space', but also to the hidden dimensions of 'time' apart from natural duration—an artificial time that can suggest galactic distance here on earth. Its focus on 'non-visual' space and time begins to shape an esthetic based on the airport as an idea, and not simply as a mode of transportation."[344]

As the construction of the airport site began, leaving aside TAMS's project, Smithson selected in the newspaper a photograph showing the site of Fort Worth, above which he writes this sentence quoted above: *"if viewed as a 'discrete stage' it becomes an abstract work of art that vanishes as it develops"* (Fig. 2. 32). He implied that according to the idea of the air terminal as a structure in constant rearrangement, his reflection on the project is one of the elements of this air terminal. [345]

2- 2D into 3D: Smithson's exhibition at the Dwan Gallery in March 1968

The "esthetic based on the airport as an idea" developed by Smithson during his collaboration with TAMS becomes essential to the works he develops during and after the project on the air terminal. The reflections on the passage from one dimension to the other lead him to his concept of nonsite. The idea of the "simulacrum of the object" as "intellect added to object" is essential. Two main stages led to the development of the nonsite: an unrealized exhibition project, and his solo exhibition at the Dwan Gallery in March 1968.

---

[344] In *Aerial Art, Writings*, p. 117. In *Towards the development of an air terminal site*, Smithson uses Tony Smith's the expression "artificial landscape" when characterizing his night drive experience on the New Jersey Turnpike. He connects it to Roland Barthes's "simulacrum of the object": "It is important to mentally experience these projects as something distinctive and intelligible. By extracting from a site certain associations that have remained invisible within the old framework of rational language, by dealing directly with the appearance of what Roland Barthes calls 'the simulacrum of the object', the aim is to reconstruct a new type of 'building' into a whole that engenders new meanings. From the linguistic point of view, one establishes rules of structure based on change in the semantics of building. Tony Smith seems conscious of this "simulacrum" when he speaks of an 'abandoned airstrip' as an 'artificial landscape'. He speaks of an absence of 'function' and 'tradition'." In *Towards the development of an air terminal site, Writings, pp. 58-59.* — In both cases, the artificial, time or landscape is a reconstruction of the object that aims at making "something appear which remained invisible, or if one prefers, unintelligible in the natural object" to use Barthes's expression (« faire apparaître quelque chose qui était invisible, ou si l'on préfère, inintelligible dans l'objet naturel. ») In Roland Barthes, *L'activité structuraliste*, op. cit., p. 467.
[345] In this sense, he echoed again the conclusion of *The structuralist activity*, "structural man is scarcely concerned to last; he knows that structuralism, too, is a certain form of the world, which will change with the world; and just as he experiences his validity (but not his truth) in his power to speak the old languages of the world in a new way, so he knows that it will suffice that a new language rise out of history, a new language which speaks him in his urn, for his task to be done." (« il importe peu sans doute à l'homme structural de durer : il sait que le structuralisme est lui aussi une certaine forme du monde, qui changera avec le monde ; et de même qu'il éprouve sa validité (mais non sa vérité) dans son pouvoir à parler des anciens langages du monde d'une manière nouvelle, de même il sait qu'il suffira que surgisse de l'histoire un nouveau langage qui le parle à son tour, pour que sa tâche soit terminée. ») In Roland Barthes, *L'activité structuraliste,* op. cit., p. 472.

a- The interior Lilliputian air terminal

In *Proposal for earthworks and landmarks to be built on the fringes of the Dallas-Fort Worth regional air terminal site*, a text written while working with TAMS, Smithson thinks of two "exhibitions" in connection with the airport project. He considers first of all that he and his comrades Robert Morris, Carl Andre and Sol LeWitt will realize the proposed works "before any major construction starts on the air terminal building."[346] To give the New York audience an awareness of the work, Smithson also thinks of an exhibition at the Dwan Gallery that would work as a kind of Lilliputian version of the project on the air terminal site: a map of the air terminal site would have covered the entire floor surface of a gallery room, bringing the outside space inside, setting a two-dimensional plane in the three-dimensional space of the room.[347] In the beginning of the construction of the air terminal, Smithson clipped another newspaper fragment: a mounting which overlays the map of Dallas Fort Worth Airport on that of Central Park, showing that both are about the same surface (Fig. 2. 33). He writes above the drawing *"consider an aircraft in the shape of an Enormous 'slab' hovering over an Such an expanse"* a phrase he also writes in italics in *Towards the development of an air terminal site*. His project for the Dwan Gallery is actually quite close to this diagram: it displaces the terminal site map, contracting it in the room of the gallery. Although this exhibition project remained unrealized, Smithson keeps the contraction principle that proves essential for the works he shows for his solo exhibition at the Dwan Gallery in March 1968.

b- Folded map sculptures

During his collaboration with TAMS between November 1966 and January 1967, Smithson realized his first solo exhibition at the Dwan Gallery. One of the works he shows is entitled *Terminal* (Fig. 2. 34).[348] This is a sculpture composed of thick hexagonal strata fixed together.[349] The strata shape echoes one of his first proposals

---

[346] In *Writings*, p. 354.

[347] "In order to communicate this development, a 4-man show will take place at the Dwan Gallery, 29 West 7th street, NYC, in conjunction with the actual process going on at the site. This show will take place in September 1967. A map of the site will be enlarged to fit the gallery floor (say 20'x10'). Models built to scale will be placed on the map. Photographs of the construction process could be displayed in another gallery room." in *Proposal for earthworks and landmarks to be built on the fringes of the Fort Worth-Dallas regional air terminal site*, in *Writings* p. 353.

[348] In this exhibition, we also find *Alogon#2* and *Plunge*, that we will study in Chapter 4 Part II.

[349] The form is enantiomorph: the strata decrease in size from each side of the larger central strata. Seen from each side, the sculpture resembles a primitive architecture that would have been rotated of 90 degrees. However, as soon as one turns and sees the mirror image, the idea of the 90 degrees tilted miniature architecture model falls.

for the architecture of the air terminal building (Fig 2. 35 and Fig. 2. 36). Using flat forms, Smithson builds a three-dimensional structure: we see again here at stake the relation between two and three dimensions. This work gets better grasped when studying the works that followed, at his second solo exhibition at the Dwan Gallery in 1968.

Upon entering the first exhibition room at the Dwan gallery, we are faced with five white sculptures (Fig. 2. 37 to 2. 40).[350] In her precious analysis of these works, Ann Reynolds noticed that the poster announcing the exhibition gives us the clue that Smithson designed the sculptures from portions of perspective grids (Fig. 2. 41 to Fig. 2. 43).[351] Each sculpture is the three-dimensional realization of the folding of a fragment of polar coordinates paper. In the short text he wrote for the exhibition's press release, Smithson calls these sculptures "infra perspectives". They are "simulacrum of the object" to the extent that they are abstract, they have nothing to do with the real, a point that Smithson emphasizes in the press release text writing that "they don't relate to natural visual conditions (...) the terrains are artificial and abstract".[352]

Each sculpture is only a fragmentary fold of polar coordinates paper, the center from which the sculpture "radiates" is absent, as we see it clearly on the drawing for the exhibition poster showing the *Leaning strata* schema with its vanishing lines. In the

[350] They are entitled *Leaning Strata, Shift, Sinistral Spiral, Gyrostasis, Pointless Vanishing Point*. Three are in steel, one in glass fiber *(Pointless Vanishing Point)* and one in plastic (*Sinistral Spiral)*. All are composed of kinds of strata that are however either curved (*Leaning Strata, Gyrostasis, Sinistral Spiral, Shift*) or bent (*Pointless Vanishing Point*). — As Ann Reynolds notes, "their forms lean, curve, or converge toward an absent point or center, which makes them appear somewhat precarious, but their measured stacking and folding holds them securely upright and in place." Ann Reynolds, *Learning from New Jersey and Elsewhere*, op. cit. p. 125.

[351] See Ann Reynolds, Ibidem, p. 125. She explains: "drawings for *Leaning strata* and *Shift* illustrate how Smithson created their three-dimensional designs by superimposing parts of a polar coordinate mapnet of longitudinal and latitudinal lines onto a linear perspective grid. In each drawing, the mapnet's radiating latitudinal and longitudinal lines cut across the orthogonal grids to create the three-dimensional edges—the tops or sides of each of the sculpture's designs. Thus these sculptures are three-dimensional projections of the intersection of fragments of the two-dimensional grids of global mapnets and linear perspective. Drawings for the other works reveal similar, and perhaps subtler combination of the two grid systems. " Ibidem, p. 127. — Ann Reynolds further develops Robert Hobbs's analysis in Robert Hobbs, *Robert Smithson: Sculpture* (pp. 101-104) She explains that "Hobbs identifies Smithson's conflation of the two systems for rendering space in *Leaning Strata's* design, and he also recognizes that his use of a cartographic grid is new. But he believes that Smithson chooses it as just another system to defeat or overturn." In note 4, p. 270. Art historian Larisa Dryansky also brightly develops Hobbs's analysis on the preparatory drawings for *Gyrostasis* in *La carte cristalline*, in *Les cahiers du MNAM* hiver 2009/2010, p. 70.

[352] Here is Smithson's text for the press release: "If the earth is considered to be a planispherical grid map, all rectangular coordinates converge at the fixed points of the poles. At the poles all visual sense of place or site is abolished. Around such fixed points radiate latitude lines; such lines may be extended into infinite magnitudes, and these magnitudes may be compressed and contracted into three-dimensional artifices (the way the planet earth may be contracted into a global map). I call these three dimensional finite compressions infra perspectives, since they don't relate to natural visual conditions or room interiors, environments, places and sites, etc. the terrains are artificial and abstract." Dwan Gallery Archives, Archives of American Art, Smithsonian Institution, on: http://www.aaa.si.edu/assets/images/collectionsonline/dwangall/fullsize/AAA_dwangall_1938656.jpg

room, each of the five sculptures is the fold of a separate polar coordinates paper. Each refers to a different center, absent and invisible. Smithson compresses the perspective space in the folds of each of the five sculptures. With these five perspectives realized in three dimensions, Smithson created aberrant objects by emptying central perspective of its center.[353] Ann Reynolds notices that the works are abstractions created out of maps. As maps are already abstractions, such works are then abstractions on a double degree. We now understand Smithson's insistence to characterize these infra perspectives as "artificial and abstract."[354]

c- *A Nonsite (An Indoor Earthwork)*

In the second room of the exhibition, we find *A Nonsite (An Indoor Earthwork)*, Smithson's first nonsite, also known as *A Nonsite, Pine Barrens, New Jersey*. The sculpture takes the form of an hexagon divided according to its diagonals into six pieces, each piece consists in five blue metal bins of decreasing size converging on a small hexagonal bin in the center. Each bin is filled with sand. Unlike the sculptures of the first room that are laid directly on the ground, *A Nonsite* is placed on a small platform, which gives it an ambiguous status: lower than a pedestal but not on the ground. Is it a mock-up? Is it a sculpture? On the wall of the room is hung the photostat of a topographic map that is cut in a hexagonal shape, following that the bins's arrangement. Right under, we read a literal description of the work (Fig. 2. 44 and Fig. 2. 45).[355]

Unlike the sculptures of the first room that are abstractions of abstractions, Smithson describes the *Nonsite* as both abstraction and representation: "the Nonsite (an indoor earthwork) is a three dimensional logical picture that is abstract, yet it represents an actual site in N.J. (the pine barrens Plains). It is by this three dimensional metaphor

---

[353] Ann Reynolds noted that these works are particularly difficult to read compared with a work such as *Enantiomorphic chambers* from 1965 which is based on a visual disappointment (the visitor cannot see in her/himself in the mirrors) followed by an understanding of the structure of the work, which are quite simple. "Works like *Leaning strata* do reveal the limits of visual and intellectual comprehension." She writes. See Ann Reynolds, *Leaning from New Jersey*, op. cit. p. 130.

[354] As Reynolds writes: "by compressing portions of mapnet projections into three-dimensional artifices, Smithson might appear to be reversing the two-dimensional map's transformation of things or places into abstractions. But since his creations are based on the mapnets, they also remain abstractions, albeit three-dimensional ones, of a previous abstraction. They are not returns to some original referent; like the planar projection's transformation into a spherical projection or globe, they defer such a return by displacing one abstract representation on to another much like metaphors linguistically displace the sense of one word to another." Ibidem, p. 131.

[355] Here is the description: "A Nonsite (an indoor earthwork) — 31 subdivisions based on a hexagonal 'airfield' in the Woodmansie quadrangle – New Jersey (Topographic) map. Each subdivision of the Nonsite contains sand from the site shown on the map. Tours between the Nonsite and the site are possible. The red dot on the map is the place where the sand was collected."

that one site can represent another site which does not resemble it – thus the Nonsite "[356] The place that Smithson chose in the Pine Barrens is a former hexagonal airfield on which he originally wanted to make an earthwork, thus realizing part of his reflections on the Fort Worth air terminal. However, he changed his mind: instead of realizing the earthwork on the site, he preferred the map of the site (an abstraction of the site as well as a contraction of the site) in order to build an interior earthwork.[357]

We now understand the choice of the platform for the nonsite: it is to provide an aerial view as its shape is calked on the airfield's hexagonal plan.[358] It is the shape of the two-dimensional map of the airport but realized in three dimensions, it is thus a three-dimensional map. Echoing the problem of convergence between two-dimensionality and three-dimensionality as thought for the Dallas-Fort Worth air terminal project, *A Nonsite (An indoor earthwork)* creates a collision of these dimensions. In the exhibition room, the visitor is confronted with a two-dimensional map on the wall and a three dimensional structure on the platform that also happens to be a map. A map made out of a two-dimensional map, it is an abstraction of abstraction, like the sculptures in the adjacent room. However, the complexity lies here: in this abstraction of abstraction, there is sand, the raw material picked up on the site. Thus Smithson explains that the viewer is faced with something that is both material and speculative. This creates a collision of data: "a bipolar rhythm between mind and matter. You can't say it's all earth and you can't say it's all concept. It's both. Everything is two things that converge. This range of convergence is really the great area of speculation, and I think artists are getting a firm grip on this."[359]

---

[356] In *A provisional theory of nonsites*, 1968, *Writings*, p. 364. — With the subsequent nonsites, Smithson's definition of his nonsites gets more complex as he does not give them any representative function anymore. We will develop on that point in our Chapter 3 Part II.

[357] Smithson recalls of it as follows: "The first nonsite that I did was at the Pine Barrens in southern New Jersey. This place was in a state of equilibrium, it had a kind of tranquility and it was discontinuous from the surrounding area because of its stunted pine trees. There was a hexagon airfield there which lent itself very well to the application of certain crystalline structures which had preoccupied me in my earlier work. A crystal can be mapped out, and in fact I think it was crystallography which led me to mapmaking. Initially I went to the Pine Barrens to set up a system of outdoor pavements but in the process I became interested in the abstract aspect of mapping. At the same time I was working with maps and aerial photography for an architectural company. I had great access to them. So I decided to use the Pine Barrens site as a piece of paper and draw a crystalline structure over the land mass rather than on a 20x30'' sheet of paper. In this way I was applying my conceptual thinking directly to the disruption of the site over an area of several miles. So you might say my nonsite was a three-dimensional map of the site." In *Discussions with Heizer, Oppenheim, Smithson*, (1970), *Writings*, p. 244.

[358] The *Terminal* sculpture of 1966 also has a hexagonal shape. We now understand that it is the superposition of various sizes of the airfield's plans.

[359] In *Earth (1969), Symposium at White Museum*, Cornell University, in *Writings*, p. 187. — What is the range of convergence? Smithson characterizes it as follows: "the range of convergence between site and nonsite consists of a course of hazards, a double path made up of signs, photographs, and maps that belong to both sides of the dialectic at once. Both sides are present and absent at the same time. The land or the ground from the site is placed in the art (nonsite) rather than the art placed on the ground. The nonsite is a container within another container —

How does the nonsite work with the problem of *tele-vision* as originally thought in the project for the Dallas-Fort Worth air terminal?

II - TELEVISION AS IDEA AND MATERIAL

1- Smithson's terminologies: the references to communication theory

a- Contraction

Smithson characterizes his nonsites with terms used in the field of communication and media theory that develop in the 1960s. The term "contraction" is used for the nonsites essentially because of the containment in the room and in bins of materials taken from the site.[360] "Information" is here contracted as opposed to its state of dispersion on the site. This recalls Marshall McLuhan's "electric contraction" of the globe.[361] For example, Smithson says: "Now the site is essentially an expanded area out there, and then it's contracted into the nonsite."[362] There is contraction of "information" in the exhibition space also because the shifts of scale between the two-dimensional topographic map of the site and the raw material of the site in the bins make us aware of a huge distance in between. Smithson referred to his project for the Dallas-Fort Worth air terminal as a "miniature universe".[363] The nonsite can be seen as such a universe, echoing McLuhan's statement about the contraction of the globe created by the development of electricity and new communication means.

b- Feedback and information

Smithson also borrows the term *feedback* to Norbert Wiener in order to deal with the mental back-and-forth movement between site and nonsite: "If you are going to go

---

the room. The plot or yard outside is yet another container. Two-dimensional and three-dimensional things trade places with each other in the range of convergence. Large scale becomes small. Small scale becomes large. A point on map expands to the size of the land mass. A land mass contracts into a point. Is the site the reflection of the nonsite (mirror) or is it the other way around? The rules of this network of signs are discovered as you go along uncertain trails, both mental and physical." This text is published as note in the end of the text for *The Spiral Jetty*, in *Writings,* p. 153. In Smithson's archives the text is entitled *Dialectic of site and non-site,* and goes with a little schema.

[360] The map can actually also be seen as a containment in relation to the scattered aspect of the site.

[361] See on that issue our Chapter 4 Part I.

[362] *Interview with Dennis Wheeler, Writings*, p. 198. In his interview with Patricia Norvell, he says: And what you are really confronted with in the nonsite is the absence of site. There's nothing… there's no positive way that you can deal with a nonsite because its limits are contracted. It's a contraction rather than an expansion of scale." *Interview with Patricia Norvell, in Recording conceptual art*, op. cit. p. 126"

[363] See the quote in epigraph of this chapter.

out of the gallery to a point with no walls, you'll find that you are back to the gallery sometime, so that it becomes a feedback situation."[364] The nonsite is the structure where information is controlled.[365] The "contained information" of which Smithson speaks to characterize the nonsite is controlled information as opposed to the "scattered information" that refer to the materials on the site.[366] Wiener uses the word *feedback* to characterize an automatic mechanism of return of information on itself, Wiener even said that it is a "reflex", so that a control of information is produced, and this control enables to adjust the forthcoming actions.[367]

Like his other comrades artists of the time, Smithson frequently uses the term "information" when speaking about his work. In 1970, art historian Kynaston McShine also borrows the term, commonly used in communication theory, for the title of the exhibition he organized at the MOMA: *INFORMATION*. This exhibition tended to give an overview of new practices that would question the term "information" from a plastic point of view.[368] Smithson's film *The Spiral Jetty* was exhibited accompanied with photographs of the work by Gianni Pettena.

In 1973, Smithson expresses a distance in relation to the popular use of the word "information" in all fields of society and suggests that dealing with things as "information" let a new formalism show through, or a return to the modernist aesthetic that he criticizes so much. He finds that the word implies reductionism: "A rock could be considered information, but usually what we think of as information is a photograph of a rock. I would prefer to call them both material. (…) There is no need to try to justify information or explain it away. It's a vague term too. (…) You could then say, like, *War and Peace* is information. A book can be considered art, or an article can be considered art. I just think that's a kind of vogue word, information.

---

[364] *In Interview with Paul Toner*, *Writings*, p. 253.

[365] The problem of the "control" of information is recurrent in his texts and interviews to characterize the art practice: "The studio and the laboratory become places where you can control your information. But at the same time, the information you're controlling is not that interesting. It tends to be rather unnecessary." *Interview with Dennis Wheeler*, *Writings*, p. 229.

[366] In *Dialectic of site and nonsite*, in *Spiral Jetty, Writings*, p. 152.

[367] Wiener gives several daily life examples in this regard, for example the fact to adjust your conduct on the road when you deviated a little during a moment of inadvertence, or the mechanism of an elevator when we call it: "the property of being able to adjust future conduct by past performance. Feedback may be as simple as that of the common reflex, or it may be a higher order feedback, in which past experience is used not only to regulate specific movements, but also whole policies of behavior. Such a policy-feedback may, and often does, appear to be what we know under one aspect as a conditioned reflex, and under another as learning. For all these forms of behavior, and particularly for the more complicated ones, we must have central decision organ which determine what the machine is to do next on the basis of information fed back to it, which it stores by means analogous to the memory of a living organism." In Nobert Wiener, *Cybernetics and society*, op. cit. p. 33.

[368] This exhibition is famous for having shown conceptual art in an important institution. It provided a large place to practices using photography as document, film, as well as works taking the forms of telegram, telex, mail, etc.

(…) Yeah, I think that there's a need to try to reduce everything to information. And things are too variable to me anyway, because there again one is trying to get away from that kind of formal straitjacket: reductionism."[369]

Dan Graham has well characterized what could be "information" on a plastic point of view: it is what is *in*-formation, being formed. He refers to the etymology of the word to counter the common understanding of the term as "transmission of knowledge".[370] Talking about *in*-formation is thus not a reductionism.

c- Program and code

In *Proposal for earthworks and landmarks to be built on the fringes of the regional Dallas Fort Worth air terminal site*, Smithson says that his project would "program" the landscape.[371] When characterizing the site-nonsite relation, he speaks of an "encoding" of site data in the nonsite: "A sequence of site choices are encoded together into a nonsite." [372] The form of *The artist as a site-seer or coded environnment* where he deals with various types of environmental encodings, highlights a set of references between the text in Part I and the notes in Part II: the figure in the end of each sentence of the text's body in Part I connects to a note in Part II. The feedback of information gives the feeling of being immersed in the maze of a computer program. The work of the text as code in a way similar to computer programs is brought to the extreme with *Quasi-infinities and the Waning of Space* published in November 1966 in *Arts Magazine*. Pamela Lee characterized this text in terms of "communicative jamming" due to its excess of codes without consistent message, and the feeling of an "endless slideshow", an expression that she borrows from Frederic Jameson. Here, "information" is so contracted that meanings get ungraspable if we only want to understand the text for what it signifies.[373]

---

[369] Robert Smithson, *Interview with two students*, 1973, p.5. In Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, Washington D.C.

[370] In 1966, he expressed about his work *Schema for a Set of Pages*: " I think I'm interested in fusing something in the present without documentation. (…) I wanted the things I did to occupy a particular place and be read in a particular present time. The context is very important. I wanted my piece to be about place as in-formation which is present. " In March 8 1970, WBAI-FM, New York. Symposium moderated by Lucy R. Lippard with Douglas Huebler, Dan Graham, Carl Andre, Jan Dibbets; program initiated by Jeanne Siegel, Art Programs Director, WBAI. *In Six Years, The Dematerialization of the Art Object from 1966 to 1972,* p. 158.

[371] "The object of this proposal is to 'program' the landscape and define the limits of the air terminal site in a new way." In *Proposal for earthworks and landmarks to be built on the fringes of the fort worth Dallas regional air terminal site, Writings*, p. 354.

[372] "A sequence of site choices are encoded together into a nonsite." In *A note on the dialectic of site and nonsite*, in Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution.

[373] Lee shows how Smithson attends to " 'how quickly' the mind passes over this information, as if absorbing these various historical artifacts in rapid-fire succession." In Pamela Lee, *Ultramoderne: or, how George Kubler stole*

2- Robert Smithson television work for LAND ART exhibition

In his project for the air terminal, Smithson planned that some television monitors installed in the building would show in video feedback the views on each sculpture located outside of the air terminal building. Trying to think of a plastic form dealing with television beyond this project, he proposes an art that involves not only the object known as television (monitor) but a *tele-vision*, literally distance seeing from one point to another of the planet, a structural principle: "Remote places such as the Pine Barrens of New Jersey and the frozen wastes of the North and South poles could be coordinated by art forms that would use the actual land as a medium. Television could transmit such activity all over the world."[374]

The television exhibition *LAND ART* organized by Ursula Wevers and Gerry Schum, broadcasted on the German channel *Sender Freies Berlin* in April 15, 1969[375], appears as an embodiment of this speculation. *LAND ART* is the first exhibition of the *Fernsehgalerie Gerry Schum,* the television gallery set up by Ursula Wevers and Gerry Schum between 1969 and 1970, which attempted to develop an art thought for television broadcasting, an art where communication would replace the "object". Indeed, in a letter to Gene Youngblood, Gerry Schum declares: "One of our ideas is communication of art instead of possession of objects." [376]

---

the time in the sixties art, in *Chronophobia*, op. cit. p. 251. —She also notes that Smithson worked on the text for about six months. We will get back to this text in our Chapter 3 Part III.

[374] In *Towards the development of an airterminal site*, *Writings*, p. 56.

[375]The TV broadcasting of the exhibition was forerun with an opening in the studio C of the Sender Freies Berlin. On that occasion, Schum presented the intentions of the television gallery as he did not want these to appear in the introduction of television broadcasting. The television exhibition is introduced with views of the opening where fourteen monitors are embedded in the wooden walls. On the walls are hung about fifty photographs of 50x60 cm, retracing the steps of the production of the films with artists. The transition to the exhibition is done through a travelling on one of the screens, immersing the viewer in the work of Richard Long. For a detailed description of the opening, see Ursula Wevers, *Love work, Television Gallery*, in *Ready to Shoot: Fernsehgalerie Gerry Schum/videogalerie Schum*, Kunsthalle Düsseldorf, Snoeck, 2004, p. 30.

[376] In *Letter from Gerry Schum to Gene Youngblood*, 29/06/1969, in *Ready to shoot*, op. cit. p. 109. — After studying at the *Deutsches Institut für Film und Fernsehen* in Munich from 1961 to 1963, Gerry Schum moved to Berlin to study at the *Film und Fernsehakademie Berlin* between 1966-1967. He tells that in 1964 when he arrived in Berlin, he became familiar with the emerging contemporary art and began to think about collaborating with artists who shared a sensibility for film and were searching for new plastic forms. In an interview in 1972, he summarizes his project: "I was unsatisfied with the television programmes being made about art. In these programmes someone talks about art illustrating this using film that show the artist working in their studios or their works. Instead I wanted to find artists who did art objects directly for television. I think it is an abuse of the medium of film if you turn a sculpture into a film by using a camera. Sculpture is not created for film but for direct interaction with it. You can turn around it, touch it. Which is why I sought artists with a basic understanding of cinema or photography. These artists were in search of new media because they simply no longer wanted to only produce sculptures and paintings. Some of these artists later became known as land artists or earth artists as they were called in America. En 1968 the first exhibition was made, but this was not an exhibition that can be compared with an exhibition in a museum. The objects were to be made especially for this exhibition, i.e. for the medium of film." In *Video Tappa Gerry Schum*, Interview with Gerry Schum in the magazine Data, Milan, March 1972, in *Ready to Shoot*, op. cit., p. 296.

Wevers and Schum proposed to four European artists and four American artists to each think a work of very short duration for television broadcasting.[377] They sought an art for which television broadcasting is the primary material, not the secondary as it is commonly the case, namely a documentary on the work of an artist. The issue was rather to develop the plastic properties of the television broadcasting, i.e. to bring to light an "aesthetic communication" to use an expression that Smithson coins in his article *Towards the development of an Air Terminal Site* in 1967.[378]

Wevers and Schum grounded the aesthetics of the television art they wished to develop on Bertold Brecht's *Verfremdungseffekt*. In *LAND ART*, it manifested for example with the insistence that the sound and the cameras appear on screen. Indeed, the work of each artist projects us into a new environment, however, some elements bring us back to an awareness of our place as spectators, thus to an awareness of the work as representation.[379] In cybernetic terms, this is the feedback mechanism: one projects somewhere else but one returns to one's place. The back-and-forth movement that Schum puts up with these films is the same as that at work with Robert Smithson's nonsite.[380] Eric de Bruyn clearly showed how the feedback effect of

---

[377] The artists are Richard Long, Barry Flanagen, Dennis Oppenheim, Robert Smithson, Marinus Boezem, Jan Dibbets, Walter De Maria, Michael Heizer. The longest film is Jan Dibbets's lasting 7:32 min, the shortest is that of Dennis Oppenheim with 2:06 min.

[378] In this, Ursula Wevers and Gerry Schum's approach meet that of the gallerist Seth Siegelaub with the *Xerox Book* in 1968, for which he had asked several artists to create a work that was thought in relation to the Xerox machine properties. Seth Siegelaub distinguished "primary information" from "secondary information" as follows : " When art does not any longer depend upon its physical presence, when it has become an abstraction, it is not distorted and altered by its representation in books and catalogues. It becomes PRIMARY information ; while the reproduction of conventional art books or catalogues is necessarily SECONDARY information…when information is PRIMARY, the catalogue can become the exhibition. " In Alexander Alberro, *Conceptual art and the politics of publicity*, MIT Press, 2004, p.155. — Even before the publication of Smithson's text in 1967 in *Artforum*, there had already been previous works thought for television broadcasting and that were considering formally the problem of "distance seeing": in 1962, Jean Tinguely realized *Study for an End of the World no.2* in the Nevada desert, a work that was broadcasted on NBC television network in the David Brinkley's Journal. It was a self-destructive machine as he had done two years earlier, in 1960, in front of the MOMA: *Homage to New York*. This work was a performance in the spirit of happening: the use of television tended to create a spectacular media event. The television was used as a mass communication tool and the work did not really question the TV screen as a means of representation. Thus we can say that Tinguely was at the opposite of Wevers and Schum's anti-spectacular approach.

[379] Art historian Eric de Bruyn noted in his essay *Land Art in the Mediascape: on the Politics of Counterpublicity in the Year 1969*: "He exploited a fundamental ambivalence at the basis of the television set up: the polarity between the screen's emphatic presence and its effects of de-realization. On the one hand, the viewer is bound to the screen, losing a sense of separation, and, on the other hand, a sense of concrete *distanciation* is imposed. Schum referred to this dialectic as a 'restructuring of artistic contemplation', which, he maintained, was already transpiring on an 'international' scale." In *Ready to Shoot*, op. cit. , p. 140.

[380] Not referring directly to Bertold Brecht as an influence for his concept of nonsite, Smithson relates to him in his essay of 1967, *From Ivan the terrible to Roger Corman, or paradoxes of conduct in mannerism as reflected in the cinema*. He characterizes Brecht's *Verfremdungseffekt* as mannerist as he characterizes his own work as mannerist in the sense that it tends to show the weaknesses of the modernist ideology: "The critics who are committed to expressive naturalism always attack pictorialism because they fail to understand what Brecht termed 'alienation effect'. Many of Brecht's ideas for the a-effect were derived from the narrative pictures of Brueghel the elder, the pictorial origin of the a-effect is opposed to the sensory character of the picture as a 'painting'. Far from being non-illusionistic, Brecht calls attention to the physical elements of illusion; thus illusion exists on an equal level

Schum's films is close to that of the nonsite when writing that "we might rewrite Schum's opening statement to say that the exhibition 'is now (t)here' ". [381]

In *Fossil Quarry Mirror with four mirror displacements*, the film Smithson realizes with Schum for the television exhibition *LAND ART*, Smithson built in the middle of a quarry a square nonsite using four rectangular mirrors. During the three minutes and twelve seconds of the work, the camera circles around the four sides of the nonsite structure, with fixed views on each mirror, sometimes very close views showing only the reflection of the quarry in the mirror, creating a doubt on the very status of the image, sometimes in larger views incorporating the mirror's edges, and sometimes some views of the entire structure of the nonsite. Smithson plays on the indiscernibility between the reflection on the mirror and the "actual" image of the quarry, which, as a filmed image, is actually as artificial as that of the mirror. This is a *mise en abyme* of representation, realizing the *Verfremdungseffekt* thanks to the focus on the edges of the mirror surfaces (Fig. 2. 46 to 2. 48).

In Smithson's archives, there is very little documentation on his collaboration with Gerry Schum.[382] In *Art Through the Camera Eye* in 1971, Smithson writes about the *LAND ART* exhibition as follows: "The *Land Art* films shot by Gerry Schum leave something to be desired; nevertheless they do indicate an attempt to deal with art in the landscape. Television has the power to dilate the "great outdoors" into sordid frontiers full of grayness and electrical static. Vast geographies are contracted into dim borders and incalculable sites. Schum's 'Television gallery' proliferates the results of Long, Flanagan, Oppenheim, Beuys, Dibbets, De Maria, Heizer, and myself over unknown channels which bifurcate into dissolving terrains."[383]

---

with reality. Says Brecht in a description of Brueghel's tower of Babel, 'the tower has been put up askew. It includes portions of cliff, between which one can see the artificiality of the stonework'. The cliff is thus alienated from the artificiality of the stonework." In *Writings*, p. 349. We will get back to this point in Chapter 1 Part III.

[381] He develops the point as follows: "To Schum, the basic code of the vision's effect of liveness may become an instrument of ideological control, if the viewer's ability to differentiate between 'here' and 'there', now and then is blocked. This is where Schum's notion of a 'feedback mechanism' between the work and the viewer comes into play. The television monitor functioned both as a pedestal and an embodiment of the 'sculptural' work itself; the screen was alternatively there and not there. Alternatively, we might rewrite Schum's opening statement to say that the exhibition "is now (t)here". Only in this play between the perceptual moments of absorption and detachment can a space for critical consciousness emerge.", Eric de Bruyn, in *Ready to Shoot*, op. cit. p. 141.

[382] We find the postcard invitations to the *LAND ART* exhibition. See Fig. 2. 49 and Fig. 2. 50.

[383] In *Art Through the Camera Eye, 1971, in The Collected Writings of Robert Smithson*, p. 374 —"The *Land Art* films shot by Gerry Schum leave something to be desired; nevertheless they do indicate an attempt to deal with art in the landscape. Television has the power to dilate the "great outdoors" into sordid frontiers full of grayness and electrical static. Vast geographies are contracted into dim borders and incalculable sites. Schum's 'Television gallery' proliferates the results of Long, Flanagan, Oppenheim, Beuys, Dibbets, De Maria, Heizer, and myself over unknown channels which bifurcate into dissolving terrains."

Why do Schum's films "leave to be desired"? Probably, although Smithson shared Schum's ambition to produce an art accessible to everyone by simply pressing the TV button at the right time, i.e. without passing first through the eye of the critique, he might have felt the gap between Schum's discourse and the current media situation. Because of this shift, Schum's television exhibitions were kinds of islands of realized utopias.[384] Eric de Bruyn notes very well that Schum's approach was grounded on the media theories developed by the School of Frankfurt in the early twentieth century, and that he did not adapt them to the context of the 1960s. He shows that the *Fernsehgalerie* thus appears as a "specific fantasy of social (re)organization": in other words, a realized utopia. [385]

Why didn't Smithson seek other proposals involving the technology of television? The question could not be asked to him. However, a response can be grasped in studying the development of his nonsites from 1968 on. Probably, Smithson was no longer attracted by the use of the television box for very concrete reasons. Indeed it is complicated to work with the square format of such a box and Smithson's approach is far from Nam June Paik's spectacular robots with Fluxus. With *A Nonsite (an indoor earthwork)*, the shifts of scale enforce the "distance seeing" that we experience in front of a television monitor, but without the use of technology. The nonsite deals with *tele-vision* in structural terms, using it as an archaic technique.

Smithson coins the term "aesthetic communication" to characterize the new form of art he tries to develop with the airport project. This is a new art form where everything is networked. The non-site keeps these principles. Let's see what it is.

---

[384] The experience of the television gallery lasted only the time of two exhibitions: after *LAND ART*, the exhibition *IDENTIFICATIONS* was broadcasted on November 15, 1970 on the Südwestfunk Baden-Baden. With this exhibition, Wevers and Schum were again faced with the lack of understanding from the direction of the TV channels, they reconverted the gallery into Video Gallery Schum, which like any traditional gallery anchored itself business in a fixed exhibition place in Düsseldorf.

[385] De Bruyn develops the point as follows: "However, we also need to realize that the media theories of Adorno or Benjamin were not produced in a historical vacuum, but emerged in response of a former stage of monopoly capitalism. It follows that their subsequent transfer into the 1960s could not occur without certain distortions. What Schum lacked, in other words, was an adjustment of the theoretical apparatus that he employed to the advanced stage of the late capitalism under which he lived. But this disadvantage on one level would be turned to an advantage on another level because the inherited conceptual framework enabled Schum to unleash a specific 'fantasy' of social (re)organization in the form of the *Fernsehgalerie*. As such, the television gallery performed a practical critique of alienation, even though it lacked a theoretical grasp of its specific relation to a concrete situation (i.e. the operative mode of public television in west Germany)" Eric de Bruyn, in *Ready to Shoot*, op.cit., p. 139.

III- COMMUNICATION AESTHETICS

1- Coding

In *The Artist as site-seer or coded environment* Smithson focuses on several examples of what he calls "environmental coding".[386] All objects on which he focuses are clearly reconstructions of reality, or, we could say, reconstructions of the environment. In the introduction of this text, Smithson already makes the link with Barthes's "simulacrum of the object", connecting it with the approaches of authors that have "the same degree of aesthetic consciousness", i.e. a similar way to reconstruct the "real", building an artificial object ("intellect added to object"). [387] In this text, the issue of code as trace and relay is at stake in all of Smithson's examples. It is announced since the epigraph with a quote from Ballard's *Terminal Beach* in which the narrator faced with megaliths remarks that they reconstruct the real as information, a structure of non-verbal signs completing a communication function and that without them, there is no more sense of reality.[388]

Throughout the various examples of communication machines on which he focuses in his text, namely computer programs or Alexander Graham Bell's studies on phonography, Smithson emphasizes on the relation between movement and inertia, which echo the shift of dimension he was dealing with in the airport terminal project: an information is transcoded from one state to another.[389] In this transcoding, the real is reconstructed. The stacked information of Bell's phonograph or "coded

[386] Smithson names the ultimate version of the text *The Artist as site-seer or a dintorphic essay*. See our Chapter 4 Part I for the explanation of this title.
[387] "Once we are free from the presuppositions we become aware of what J.G. Ballard calls "the synthetic landscape" or what Roland Barthes refers to as "the simulacrum of objects", or what Tony Smith calls the "artificial landscape", or what Jorge Luis Borges calls "visible unrealities". What do these four persons have in common? Not assumptions or beliefs of any kind, but the same degree of aesthetic awareness. For them the environment is coded into exact units of order, as well as being prior to all rational theory; hence it is prior to all explanatory naturalism, to physical science, psychology, and also to metaphysics. An example of this environmental coding is Stonehenge." Ibidem, p. 341.
[388] "The system of megaliths now provided a complete substitute for those functions of his mind which gave it its sense of the sustained rational order of time and space, his awareness kindled from levels above those of his present nervous system (if the autonomic system is dominated by the past, the cerebro-spinal reaches towards the future.) without the blocks his sense of reality shrank to little more than the few square inches of sand beneath his feet." In *The artist as Site-Seer, Writings*, op.cit., p. 340.
[389] For example, Phonography deals about the passage from movement ("speech") to immobility ("stacking"), but also from the invisible to the visible. Speech, an invisible form becomes visible as it gets encoded on the glass. This passage from one state to another works similarly with computers. Any "data" is reduced to a network of digits (computer code) enabling its transmission. An image is converted into a code and then becomes again an image. "In 1873 he (Bell) traced space sounds upon smoked glass which was a kind of early oscillograph. The speech patterns were fixed on the glass and called a 'visual form' by Bell. Such visible speech patterns are measured by spectrographs. The 'stacking' of successive instants of speech makes it possible to 'read' the stacked spectra, and identify the syllables, words, or sentences visually." Ibidem.

information" has a dual function: that of being a memory, the last stage of information, its synthesis in the form of the static trace which transforms into a "relay" as soon as this trace is activated, allowing information to circulate again.[390]

2- The "raft of systems"

Although Smithson grounds his aesthetic on an invisible grid, this latter is to be distinguished from the "system", popular at the time among artists and critics venturing to draw links between science and art, particularly with the exhibition *Software: Information technology: its Meaning for the arts* organized by Jack Burnham in 1970 at the Jewish Museum. Smithson refuses to connect his approach to a system in the scientific, logical and rational sense commonly given to the term. On this point we should return to Barthes's characterization of structuralism, "a new category of the object, which is neither the real nor the rational, but the *functional*, thereby joining a whole scientific complex which is being developed around information theory and research."[391] We noted above that in characterizing the "structuralist activity", Barthes refers to the "surrealist activity", an interesting fantasy. What matters is how man "mentally experiences structure", in other words: imagination.[392] For Barthes, structure as grounded on imagination has nothing of logic or rational. This point is essential for Smithson.[393] He diverges clearly from Sol LeWitt's position who declares that "Irrational thoughts should be followed absolutely and logically."[394] He explains it on an incisive tone in an interview with two students: "well, Sol LeWitt says if you take something irrational and follow it out logically, that's conceptual art. But with that kind of thinking, we could say that a good example of conceptual architecture is Dachau, since that's an irrational idea

---

[390] Smithson later develops this point focusing on the issue of language: between spoken and written language, the written language is constantly working between transcoding, decoding, recoding of spoken language. He writes: "Books entomb words in a synthetic rigor mortis, perhaps that is why "print" is thought to have entered obsolescence. The mind of this death, however, is unrelentingly awake." in *LANGUAGE LOOKED to be at and / or to be THINGS READ*, the press release of the exhibition he organized at the Dwan Gallery in 1967.
[391] In Roland Barthes, *L'activité structuraliste*, op. cit., p. 470. « D'abord il manifeste une catégorie nouvelle de l'objet qui n'est ni le réel ni le rationnel, mais le *fonctionnel* rejoignant tout un complexe scientifique qui est en train de se développer autour des recherches sur l'informatique »
[392] "vit mentalement la structure ". He writes: « on dira donc tout de suite que par rapport à tous ses usagers, le structuralisme est essentiellement une activité, c'est-à-dire la succession réglée d'un certain nombre d'opérations mentales : on pourrait parler d'activité structuraliste comme on a parlé d'activité surréaliste (le surréalisme a peut-être, d'ailleurs, produit la première expérience de littérature structurale, il faudra y revenir un jour.) »In Roland Barthes, *L'activité structuraliste*, op. cit., p. 467.
[393] We will get back to Smithson's relation with Surrealism in our Chapter 4 Part II.
[394] Sol LeWitt, *in Paragraphs on conceptual art, Artforum*, June 1967, 5th paragraph.

carried out logically. That's kind of problematic, I think. I think that there's just so much glib baloney about 'conceptual'. It's one of those kinds of words like a big sink, and you can just throw anything into it. It has this kind of cancerous growth of meanings."[395]

When in 1969, Patricia Norvell asks him to talk about "the system", he replies that "the system is bound to evade itself (…) It's just an expansive object, and eventually that all contracts back to points". He considers the system as a belief, something that keeps a religious aspect: "So if a raft of system will do, if that makes him happy…"[396] "the system is bound to evade itself", but also to degrade, to break up when control falls: it is thus the entropic fall such as developed by Norbert Wiener in *Cybernetics and Society*.[397] We saw above that Wiener coined a word to describe the control mechanism enabling to maintain a balance of activity: feedback. The feedback of information enables to "adjust future conduct by past performance" and doing so, it produces says Wiener "a temporary and local reversal of the normal direction of entropy".[398] If information were not fed back, it would be dispersed, lost in the entropy flow. Thus the system, the word is popular in the 1960s, is actually a temporary islet. Like anything else, it will deteriorate. For Smithson, "a raft of systems" does not do the trick. In contrast, he coins the expression "aesthetic communication" to characterize his approach, a language-based art.

---

[395] In *Interview with two students*, 1973, *Robert Smithson and Nancy Holt Papers*, Archives of American Art, Washington D.C.

[396] *Interview with Patricia Norvell*, June 20, 1969, in *Recording Conceptual Art*, University of California Press, 2001, p. 133. — "PN: Jack Burnham feels we are going from an object oriented society to a system oriented society. RS: well, that's pretty good since I don't see any trace of system anywhere. That's a convenient word. It's like 'object'. It's another abstract entity that doesn't exist.… I mean there are all these things like structure, object, systems. But, then again, where are they? I think art tends to relieve itself of those hopes. Like last year we were in an object world and this year we're in a system world. Well, Jack Burnham is very interested in going beyond and that's kind of a utopian view. The future doesn't exist, or if it does exist, it's obsolete in reverse. The future is always going backwards. We're never…our future tends to be prehistoric. I see no point in utilizing technology or industry as an end in itself or as an affirmation of anything. That has nothing to do with art. they're just tools.
So if you make a system, you can be sure the system is bound to evade itself. So I see no point in pinning you hopes on a system. It's just an expansive object, and eventually that all contracts back to points. Within a system there are lots of objects, points. If I saw a system, or if I saw an object, then I might be interested. But to me there are only manifestations of thought that end up in language. It's a language problem rather than anything else. It all comes down to that. What you call something yesterday and what you call it today really result in nothing but verbalization of mental constructs. So you have to build something to convince yourself that you're still around. So if a raft of system will do, if that makes him happy…"

[397] See our Chapter 4 Part I. — "the machine, like the living organism, is, as I have said, a device which locally and temporarily seems to resist the general tendency for the increase of entropy. By its ability to make decisions it can produce around it a local zone of organization in a world whose general tendency is to run down." In Norbert Wiener, *The Human Use of Human Beings: Cybernetics and Society*, Doubleday Anchor Books, 1954, p. 34.

[398] Ibidem, p. 25.

3- Aesthetic communication against theory of communication

In the conclusion of *The artist as Site Seer or a dintorphic essay*, Smithson clearly declares that the entire development of the text tended to show how visual art is based on language which he calls "the enigma of blind order". In our Chapter 4 Part I we analyzed how he demonstrates with the Great Pyramid of Egypt that prime words act as matrix of prime objects.

In *Towards the development of an air terminal site*, he asserts this language-based approach to visual arts, focusing again on Bell's works. After remarking that Bell's works can be viewed in terms of structuralist grid, he calls them "linguistic objects".[399]

Language is the invisible construction that underlies all of what is perceptible. It is as such that it lies at the basis of what Smithson calls "aesthetic communication", which is governed by "linguistic sense data", data that distinguish from any type of rational construct: "As one becomes aware of discrete usages, the syntax of esthetic communication discloses the relevant features of both "building" and "language". Both are the raw materials of esthetic communication and are based on chance—not historical preconceptions. Linguistic sense data, not rational categories, are what we are investigating. Carl Andre has made it clear that without linguistic awareness there is no physical awareness."[400]

"Aesthetic communication" is his response to the "communication theory" that develops at the time. More modestly than a "theory", aesthetic communication is an aesthetic consideration of networked objects. The term could have been coined by George Kubler to characterize his sequences of forms in the theory of prime objects he builds in *The Shape of Time*. Smithson puts it at the center of his concept of nonsite.

Barthes's "simulacrum of the object" helps him characterize the new plastic approach he proposes in order to "engender new meanings". With that purpose, he declares that "What is needed is an esthetic method that brings together anthropology and linguistics in terms of 'buildings". This would put an end to 'art history' as sole

---

[399] In *Writings*, p. 55. Smithson noted that Bell had thought of airborne structures that were "prefabricated, standardized and crystalline, close enough to Buckminster Fuller's inventions." He notes that Bell, along with his invention of the telephone, was interested in "aerodynamics, aeronautics, shipbuilding, engineering science, medicine, electrical engineering, and surveying." In *Towards the development of an air terminal site*, Writings, pp. 54-55.
[400] In *Towards the development of an air terminal site, Writings,* p. 59.

criterion."[401] How can he find an alternative to "'art history' as sole criterion"? It seems that he finds it in dismantling the concept of modernist abstraction. This is what we will see in our next chapter.

---

[401] "By extracting from the site certain association that have remained invisible within the framework of rational language, by dealing directly with the appearance or what Roland Barthes calls 'the simulacrum of the object', the aim is to reconstruct a new type of 'building' into a whole that engenders new meanings. From the linguistic point of view, one establishes rules of structure based on a change in the semantics of building. (…) What is needed is an esthetic method that brings together anthropology and linguistics in terms of 'buildings". This would put an end to 'art history' as sole criterion." In *Towards the development of an air terminal site*, *Writings,* p. 59.

PART TWO

CHAPTER 3

DEGREES OF ABSTRACTION AND ONGOING ABSTRACTION: TOWARDS SITES OF TIME

A new quality entered the best abstract art.

Robert Smithson, Notebook[402]

Different mediums but different degrees of abstraction… some are painted steel containers, and others are maps, others are photographs. And they are all different kinds of mental and physical abstractions.

Robert Smithson, *interview with Dennis Wheeler*[403]

History no longer exists.

Mel Bochner and Robert Smithson, *The Domain of the Great Bear*[404]

When browsing through Robert Smithson's notebooks, we see how technology and abstraction are two great obsessions: he characterizes and re-characterizes their forms in contemporary society and focuses on the connections between artistic abstraction and technology. In a short text entitled *Two attitudes towards the city*, he writes: "Technology at best is only a tool. Technology is not art (confusion of space and time)".[405] Across the pages of one of his notebooks, we see how he tries to reformulate the changes that occurred in abstract art since the 1950s. Certain phrases stand alone on the space of a page, they seem to have been thrown on the paper spontaneously and left there as if to let the thought chill out. Thus turning the pages, we successively read:

---

[402] Notebook, in Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3884.

[403] Robert Smithson, interview with Dennis Wheeler, in *Writings*, p. 208.

[404] Robert Smithson and Mel Bochner, in *The Domain of the Great Bear*, *Art Voices*, 1966, in *Writings*, p. 33.

[405] In *Two attitudes towards the city*, Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3884.

"abstract art developed a new quality when 'abstract expressionism' went into it's alleged decline.

 a new quality entered the best abstract art.

 abstract expressionism was created out of (…)"[406] (Fig. 2. 51)

Smithson searches the words for writing the history of a new abstract art, rewriting that of the historical abstraction as it developed since the early twentieth century.

In his writings, technology appears as a cultural refinement creating abstractions (in the common sense) that are increasingly sophisticated. He saw two essential points in this process that keep strongly intertwined. First, the popularity of new scientific technologies appears as a continuation of the forward movement of the Christian religion.[407] Then, technological positivism appears to be the consequence of society's heightened categorization process since the late eighteenth century. The increasingly sophisticated abstractions result from that heightened categorization: each activity developing within a specific category is no longer able to understand the whole network of activities in which it situates.

Smithson thus speaks of the "abstractions of technology."[408] Technology is the result of a process of abstraction and produces new abstractions: a *mise en abyme*.

Attracted by contemporary technological innovations for their ability to change the way we live and our perception of the world, he defends a dualistic approach to technology in refusing the too optimistic trend at work in some plastic approaches of the time. Indeed some artists using the latest technologies follow Marshall McLuhan's line rather than to adopt a critical view in relation to these innovations — i.e. considering the challenges of these technologies over the long term.[409] "Art aping science turns into a cultural malaise" he writes in his letter to Gyorgy Kepes in 1969, with which he retracts from the Tenth Biennial of Sao Paolo on the grounds that "to celebrate the power of technology through art strikes me as a sad parody of NASA." Taking technological innovations against the grain, he tries with his works to give an

---

[406] Notebook, in Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3884.

[407] He expressed it in his interview with Paul Cummings, already quoted in our Chapter 3 Part I: "I'm trying to achieve a sublime nausea by using the debris of science and making it superstitious. Religion is getting so rational that I moved into science because it seems to be the only thing left that's superstitious. (…) It is not that I'm for science or religion, or anything like that. I just want to be completely uninvolved. All of this is a metamorphosis from religious iconography which I found a rather atrophied realm." *Interview with Paul Cummings*, op. cit., Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, Washington D.C.

[408] In *Untitled* (1972), in *Writings*, p. 379.

[409] His letter ends as follows: "If technology is to have any chance at all, it must become more self-critical. If one wants teamwork he should join the army. A panel called 'What's Wrong with Technological Art' might help. "In letter to Gyorgy Kepes, July 3, 1969, in *Writings*, p. 369.

understanding of the degree of elaboration of refined materials by relinking them with the raw materials of which they are composed.

Smithson says that the nonsite enables to grasp "degrees of abstraction": he wishes that faced with his work the visitor gets aware of how abstraction is built. Each material from the nonsite deals with a different degree of distance in relation to the site to which it refers. This principle of degrees of abstraction is essential to the aesthetics Smithson sets up. He develops it by using other materials from 1969 on: mirrors replace the map for some nonsites. From 1970 on, he uses film for some projects and works.

We will first develop the challenges of these degrees of abstraction in relation to new technologies (I), we will then see how in the development of his concept of nonsite, Smithson aim at redefining artistic abstraction (II), turning a spatial problem into a time issue (III).

I- ABSTRACTION AND TECHNOLOGY IN THE FIRST NONSITES

1- Paleotechnology of the nonsite

While in his project for Dallas Fort Worth air terminal he thought a work using television as an intrinsic material, for *A Nonsite (an indoor earthwork) (1968)*, Smithson develops the principle of "distance seeing", but now neglecting the so-called technology. Indeed, with *A Nonsite (an indoor earthwork)* he deals with television as a kind of "paleotechnics", or we could also say a "paleotechnology", an ancient technique. In the early twentieth century the term "paleotechnics" was coined by historian of technologies Lewis Mumford in *Technics and Civilization* (1934) in order to characterize the Industrial Revolution. Smithson had read Mumford, whose thinking also influenced that of Herbert Marcuse and Marshall McLuhan.[410]

Considering Smithson's interest in cybernetics (see our Chapter 4 Part I), we could even say that the nonsites are of the order of the "paleocybernetics", a term coined by film critic Gene Youngblood to characterize what he calls the "expanded cinema" practices that develop in the United States from the early 1960s (also the title of his

---

[410] In Smithson's notes for his text *Frederick Law Olmsted and the dialectical landscape*, we find an excerpt from Mumford's *The Brown Decades: A study on the arts in America*, 1865-1895 (1931) in which he makes a remark on Frederick Law Olmsted.

book which was published in 1970). Indeed, the connection between new technologies and the paleo was in the air during the 1960s among artists and theoreticians, influenced in this by McLuhan's ideas. Gene Youngblood's approach is clearly utopist as he sees the development of cybernetics as a means toward a heightened liberation of man.[411]

As we have seen in our Chapters 3 and 4 of Part I, Smithson positions against optimistic approaches of new technologies. His first nonsites act as the dismantling devices of a technology in full development during the 1960s, the television. The nonsite's "various degrees of abstraction" work as a "paleocybernetics" that is to be distinguished from Gene Youngblood's optimism. From 1970 on, the nonsites for which he plans to use the film are critical responses to the film theoretician's utopian statements.

2- Relative abstraction and absolute abstraction

A Nonsite (An indoor earthwork) and the nonsites that Smithson realizes between 1968-1969 gather three different materials that each act as a particular "degree of abstraction" in relation to the site (Fig. 2. 52 to 2. 54).

In each case, the two-dimensional map on the wall is a first abstraction of the site. The three-dimensional structure composed of metallic bins follows the form of the two-dimensional map of the site. It is an abstraction of the site on a second degree. In this abstraction of abstraction, there is sand, lava, or other raw materials taken from the site, to which the first abstraction refers (the two-dimensional map).

Note that the status of the raw material taken from the site is ambiguous: inside the metallic container (itself a second degree abstraction of the site), it also acts as an abstraction of the site but on another level. Smithson plays on the ambivalence of the word "abstract" as to "extract", but keeping in mind what we understand by artistic abstraction. Indeed, the raw material is "abstracted" from the site. Detached, distanced from the site (that is the definition of the Latin *abstraho* says the Gaffiot dictionary), it becomes an abstraction. Thus the sand, stones or pieces of lava contained in the nonsite are both the raw material of the site as much as an abstraction of it once they are placed in the metallic bins in the museum room.

---

[411] Art historian Larisa Dryansky notes this point in her essay *Paléofuturisme : Robert Smithson entre préhistoire et posthistoire*, in *Cahiers du MNAM*, hiver 2013/2014, p. 14.

Smithson calls the raw material "relative abstractions" as their status is not stable, while the metallic bins are "absolute abstractions": "Well, the deposits within the limits of either the metal containers, or the deposits in conjunction with the mirrors, are always shifting. They're never in the same positions. So that the raw material is always relative, but the rigid or painted or mirrored surfaces are in a sense, absolute. One aspect of the piece is changing and the other aspect is always remaining the same. So that you have, like a shift within an ongoing abstraction. So that the relative is always there as well as the absolute abstraction."[412]

The raw material and the two-dimensional map of the site both refer back to the site but on a distinct "degree", their distance in relation to the site is different because of their respective statutes: two-dimensional surface and three-dimensional raw material. The metal bins, second degree abstractions of the site bring out the abstract aspect of the map as well as the raw material they contain. Smithson calls them "abstract container". They are of metal, an industrially refined material. Moreover, Smithson paints the bins to emphasize their status of abstract objects: "in the nonsites I covered the steel to make the containers more abstract."[413] He also calls them "rooms within rooms" which brings us back to the *mise en abyme* induced by their status as abstractions of abstractions.

3- Artistic abstraction and abstraction of capitalism

In his writings, Smithson makes no distinction between the problem of artistic abstraction and abstraction in the common sense as "removal" from a source point. He sees modern artistic abstraction and the abstraction created by capitalism (with the separation of the activities of society into separate categories) as one and the same movement — or rather, modern artistic abstraction is the consequence of the abstractions created by the division of society into categories. In an unpublished text entitled *Sonsbeeck Unlimited, art as ongoing development*, he writes: "Capitalism puts a high value on 'abstraction' because it separates work from product."[414] He even comes to say that what we commonly understand as artistic abstraction is actually rooted in problems of representation.

---

[412] *Interview with Patricia Norvell*, in *Recording conceptual art,* University of California press, 2001, p. 128.
[413] *Interview with Paul Toner*, in *Writings*, p. 235.
[414] In *Sonsbeeck Unlimited, art as ongoing development*, in Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834.

Dealing with abstraction in the common sense of the term, Smithson tends in a powerful gesture to bring down not only the foundations of modernist abstraction aesthetics but the foundations of modern art. Indeed modernist abstraction is ultimately the pinnacle of the autonomous object theory as developed in the eighteenth century, an autonomy which Smithson dismantles by creating a multimedia work: the nonsite — a paleotechnological multimedia work.

Focusing on the relationship between art and economy, Smithson uses again the term "abstract" as "to remove". The ambivalence of the word "abstract" reveals how in an economic point of view, this artistic abstraction is ultimately a currency, an abstract good: "Oddly enough, many artist's products are valued in this society because they are 'abstracted' out of nature — they become part of the currency of modernism. (…) Engineers like certain artists are also abstracted from the result of their work. Today economics seem to be the cause of this blindness. The highway trust is a good example of such a blindness." [415]

Moreover, he uses repeatedly the term "portable abstraction" in his writings and letters to talk about modernist paintings. In a letter to Enno Develing, he writes: "By making portable abstractions, the middle class artist plays right into the bands of mercantilist domination. Money itself is a figurative representation reduced to the widest exchange. Portable abstract art is a non-figurative representation reduced to a narrow exchange." He remarks that "the portrait of a king or a president on money together with arcane symbols and signs is for the many. The stripes and grids of an abstract painting is for the few. Both currencies are exchangeable but only for those that control the mysteries of wealth. Mysteries replace precious metals as value standard." [416] In contrast with these "portable abstractions", modernism's fake autonomous works, Smithson describes his nonsite as "a network or maze of signs or a syntax of traces".[417]

In the nonsite, each material is a certain degree of abstraction in relation to the site in so far as it interacts with the other materials with which it is juxtaposed or imbricated. The degrees of abstractions only work in an aesthetic of heteronomy of materials and

---

[415] In Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834. These notes follow his draft for his text *Abstract Mannerism* (1966-1967).

[416] In *Letter to Enno Develing*, undated, Robert Smithson and Nancy Holt Papers, Archives of American Art, reel 3833.

[417] *A note on the dialectic of site and nonsite*, Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834. — "The range of this dialectic is ruled not by determined 'objects', but by a network or maze of signs or a syntax of traces. The course of my art is full of hazards. The site is a reflection of the nonsite (mirror), or it is the other way around?"

objects as opposed to the so-called autonomy of the modernist abstract object.[418] Let us see how Smithson develops these degrees of abstraction after his first nonsites.

II—MAP, MIRROR, PHOTOGRAPHY: HOW TO PUT UPSIDE DOWN CLASSICAL NOTIONS OF REPRESENTATION?

1- From map to mirror

"you have the nonsite functioning as a mirror and the site functioning as a reflection, so that existence becomes a doubtful thing to capture, so that you're presented with a nonworld — or what I called the nonsite." [419] The nonsite is the mirror of the site. Smithson makes this metaphor since the beginning of the development of the concept of nonsite. It gets more complex from the end of 1968 when he introduces precisely mirrors in his works.

In some nonsites from this period, the mirrors replace the metallic bins containing the materials from the site as second-degree abstractions. This is the case of *Gravel Mirrors with Cracks and Dust* shown at Smithson's exhibition entitled *Nonsite* at the Dwan Gallery from 1 to 26 February 1969 (Fig. 2. 55 and 2. 56).[420] The feedback of mirror reflections with the gravel "cancels" the corner of the wall and floor creating a confusion between flat surface and volume. There is no more map on the wall than with the other nonsites. The mirrors actually replace both the bins and the map. Smithson here merges together the two representative devices that are the mirror and the map, but they now do not feed any image back.

The confrontation of mirrors and materials abstracted from a site is developed with variations in several works during the same year, namely with *Nonsite (Essen Soil and Mirrors)* in 1969.[421] The square mirrors here form a cross in the center of which the earth is laid. The shape of the work is that of a type of crystal, the symmetry is such that the view from any angle is similar to all others (Fig. 2. 57 and Fig. 2. 58).

---

[418] Here we find the link to information theory as developed in Chapter 4, Part I.

[419] Robert Smithson, *Interview with Patricia Norvell*, in *Recording Conceptual Art*, op. cit., p. 127.

[420] Whereas the other nonsites in the exhibition were variations from *A nonsite (an indoor earthwork)*, with the materials contained in the bins along with a two-dimensional map that follows the shape of the bins, *Gravel Mirrors Cracks and Dust* consists in twelve square mirrors and gravel, six mirrors placed horizontally on the ground at the corner of the wall against which the other six mirrors are placed vertically against the wall. In the corner between these mirrors, Smithson laid the gravel.

[421] The work was realized for the *Vergorgene Skulpturen* exhibition at the Museum Folkwang Essen (9 May-22 June, 1969)

With these crossed mirrors, the reflections of materials and fragments of the surrounding create confusion between the materials and their reflection, realizing a cancellation of the surrounding space. The mirrors replace the bins as "absolute abstractions".

However, why does the mirror not only replace the bins but also the map? In 1967 Smithson had already superimposed a map on mirrors with *Untitled (Map on Mirror-Passaic, New Jersey)*, where seven square mirrors of decreasing size are stacked, each covered with the same map adapted to the scale of each mirror. We understand that the maps are superimposed on the mirrors only because Smithson cut the thickness of the river on each map so as to have a fine piece of light reflection appear (Fig. 2. 59). Working between mirrors and maps, Smithson continues to purposely confuse abstraction in the common sense with artistic abstraction. The geographic map is a grid that is an abstraction of a site. Abstract painting is also built on a grid that is not always visible. Smithson notes this point: "the most abstract art works are out of a kind of mapping. A map is a mental system made of grids, latitudes, and longitudes. You can draw a stratigraphic map out of any abstract painting."[422]

In some of the nonsites, the mirrors are ambivalent as they are both reflections of an environment and absolute abstractions, oscillating between a reference to the geographic grid and the pictorial grid. Smithson develops this point with his "mirror displacements". Here the mirrors refer as much to the map, the painting, as well as the photograph. All these materials were at stake in his original plan for the mirrors displacement of the Cayuga Salt Mine Project in 1969. With this project, Smithson says that he deals with mirror as "concept and abstraction." [423]

2- The mirror displacements

a- *Cayuga Salt Mine Project*: from photograph to mirror, from mine to museum

From 1969 on, Smithson realizes several "mirror displacements" with which he dismantles the role of the mirror as a classical representation device. The first of them is realized for the *Earth Art* exhibition at the Andrew Dickson White Museum of

---

[422] *Interview with Paul Toner*, 1970, in *Writings*, p. 234.
[423] In *Fragment of a conversation* (1969), edited by William C. Lipke, in *Writings*, p. 189.

Cornell University in Ithaca in the state of New York.[424] Smithson considers this project as a development of his nonsites.[425] In the course of the reflection following the visit of the museum and the mine, Smithson made several proposals that lead to a work built in several stages between the mine and the museum, connecting the place of raw material extraction to the institution with a mirrors track. Smithson first thought to make a series of photographs of the mine that he wished to place both in the mine and in the White Museum, where they would be placed between the rock salt brought from the mine (Fig. 2. 60). He considered to displace part of the museum exhibition to the mine, proposing to compare the placement of photographs of the mine in the mine with those same photographs placed among the pieces of rock salt deposited in the museum. He wanted to make perceptible — quite didactically — two different degrees of abstraction between the structure of the mine where the walls are irregular and rough and the structure of the museum with its immaculate white rooms, the heightened abstraction. The rectilinear aspect of the photographs placed in the mine would have introduced a first degree of abstraction in the irregular structure of the mine, while the photographs of the mine placed between the rock salt deposited in the museum would have acted as a reflection of the mine, indicating in the museum a lower degree of abstraction than the rectilinear and immaculate room containing them.[426]

He finally decided to replace photographs with mirrors and then instead of displacing part of the exhibition in the mine, he decided to photograph the mirrors on the locations he chose on the site. These photographs were then hung on the walls of the

[424] From February 11th until March 6th 1969.

[425] As stated in a press release from the John Weber Gallery, Smithson went in October 1968 to Ithaca for the preparation of the exhibition, he decided at that time to visit the Cayuga salt mine."Robert Smithson visited Ithaca in October, 1968 to determine which site would be appropriate for the projected Earth Art Show in February, 1969. The decision was made at that time to view the Cayuga Salt mine." In Cayuga Salt Mine Project (1968-1969), John Weber Gallery, Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834.

[426] Smithson develops the point as follows: "Another reason I'm going into the mines is that there are no ideal walls or floors; it's essentially crumbling. All the walls, and all the floors are in a state of crumble—the rectilinearity of the square of the work in contrast to the disruption of the interior of the mine. If you take a pure gallery space that's like an ideal space, now you can't extend crumbling material throughout the gallery that is still contained by the gallery. With the nonsite the experience goes beyond, outside the gallery. It doesn't really go beyond it, because you are thrown back into that space…" In Interview with Dennis Wheeler, in Writings, p. 204. — He explained his choice to work with photographs as follows: "This was the first interior underground site that I did, the one in the salt mine. There you have an amorphous room situation, an interior that's completely free. There's no right angles forming a rectilinear thing. So I'm adding the rectilinear focal point that sort of spills over into the fringes of the non-descript amorphousness. Then it's all contained when you shoot the photograph so you have that dialectic in that."In Fragments of a conversation (1969), edited by William C. Lipke, in Writings, p. 189.

exhibition room near the mirrors installed in the rock salt mounds (Fig. 2. 61 to 2. 70).[427]

With this work Smithson wished to reveal the structural analogy between the two buildings, the mine and the museum, giving an awareness of how the museum itself is an abstraction compared to the relatively rough structure of the mine. The mine is a kind of underground grid, a network of scaffolding that maintains the rock mass and prevents its collapse. In his archives, Smithson had the reproduction of a XIXth century etching showing such a grid (Fig. 2. 71). The museum is a different kind of architectural grid containing other grids, among others, abstract artwork. In Smithson's work, these two grids reflect each other, combining the observation of industrial structures and artistic issues. In the museum, the mirrors are placed so that one cannot see one's own image but pieces of the surrounding space or just the reflection of light (Fig. 2. 69 and 2. 70): this point is important for Smithson's consideration of mirrors as "abstractions." This issue is further developed with his mirror displacements in the Yucatan in April 1969.

b- *Incidents of Mirror-Travel in the Yucatan* : raw reflections of photographed mirrors

With the mirror displacements in the Yucatan, the exhibition of the mirrors now takes the form of photographs in relation with a science fiction style text dotted with plastic criticism, *Incidents of Mirror-Travel in the Yucatan*, published in *Artforum* in September 1969 (Fig. 2. 72 and Fig. 2. 73). [428]

---

[427] The project gets actually complex as it replaces the initial site/nonsite duality (mine/museum) with a double duality including the exterior of the mine (site), the interior of the mine that he calls "sub-site" as well as the museum exhibition room (nonsite) and the cellar of the museum (sub-nonsite). He first had photographed the eight mirrors installations on the site outside the mine following the views that he indicated as states the John Weber Gallery press release. In the mine (sub-site), he realizes another installation of mirrors he had photographed. After that, he built a "track" with the eight mirrors connecting the mine to the museum, which he had photographed and then immediately dismantled. The eight mirrors are then placed between the salt rocks in the museum room, while on the wall are hung the photographs of the mirrors on the mine site and on the track, along with a map on which the locations of the mirrors on the track are indicated. The sub-nonsite is installed in a dimly lit room in the cellar of the museum, it is a two feet square mirror (61 cm) placed between rocks collected in the sub-site, the mirror position was chosen so that "when viewed from an angle of forty-five degrees, reflected not only the rocks on the surface of the mirror, but the peeling back wall of the room." In *Cayuga Salt Mine Project*, John Weber Gallery release, Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834.

[428] This work has been the subject of much analysis and commentary about his relationship with history and about its form of work published in a magazine. We will focus only on the place of the photographed mirrors. For the relation to history, see Jennifer Roberts in *Mirror Travels: Robert Smithson and History*, Yale Univesity Press, 2004, who analyses Smithson's text in relation with writer John Lloyd Stephens's *Incidents of Travel in Yucatan*, and Ann Reynolds in *Learning from New Jersey and Elsewhere*, MIT Press, 2003, who analyses the work in

During his travel to Yucatan, Smithson achieves nine mirror displacements stopping at different sites. These are nine ephemeral installations, each immediately dismantled after being photographed. The arrangement of mirrors reminds of a grid, Smithson describes it precisely as an "indeterminate grid" (Fig. 2. 74).[429]

In each mirror installation, mirrors are arranged and photographed so that their surfaces ultimately give very little to see: many are placed horizontally on the ground or leaned, reflecting the sunlight. Thus the mirrors in the photographs of some of the displacements actually show a network of monochromes, some are partially covered with earth as in the *Cayuga Salt Mine Project*. Here the earth on the mirrors reminds of the color pigments on canvas. Smithson describes the mirrors as if they were paintings and jokingly takes the modernist theory principles against the grain. He comes to oppose the "pure color" (modernist) to that of the mirror reflections where "glutinous light submerged vision under a wilderness of unassimilated seeing". [430] He writes: "Acrylic and day-glo are nothing to these raw states of light and color. Real color is risky, not like the tame stuff that comes out of tubes. We all know that there could never be anything like a 'color-pathos' or a pathology of color. How could 'yellow as yellow' survive as a malarial tautology?"[431]

The mirror's raw light and color make the "tame" colors used for abstract painting canvases look miserable. They deal with "actual color as opposed to paint". [432] They

relation with the space race. Indeed, Smithson travels to Mexico in April 1969, Neil Armstrong touches the Moon in July 1969, Smithson's text was published in September.

[429] "Countless chromatic patches were wrecked on the mirrors, flakes of sunshine dispersed over the reflecting surfaces and obliterated the square edges, leaving indistinct pulverizations of color on an indeterminate grid." In *Seventh mirror displacement*, in *Incidents of Mirror-Travel in the Yucatan*, in *Writings*, p. 128. In his article in *Artforum*, Smithson organizes the photographs into a new grid: a *mise en abyme* of grids is thus created.

[430] In *Incidents of Mirror-Travel in the Yucatan*, in *Writings*, p. 129.

[431] "What really makes one listless is ill-founded enthusiasm, say the zeal for "pure color". If color can be pure and innocent, can they not also be impure and guilty? In the jungle all light is paralyzed. Particles of color infected the molten reflections on the twelve mirrors, and in so doing engendered mixtures of darkness and light. Color as an agent of matter filled the reflected illuminations with shadowy tones, pressing the light into dusty material opacity. Flames of light were imprisoned in a jumbled spectrum of greens. Refracting sparks of sunshine seemed smothered under the weight of clouded mixtures—yellow, green, blue, indigo and violet. The word "color" means at its origin to "cover" or "hide". Matter eats up light and "covers" it with a confusion of color. Luminous lines emanate from the edges of the mirrors, yet the surface reflections manifest nothing but shady greens. Deadly greens that devour light. Acrylic and day-glo are nothing to these raw states of light and color. Real color is risky, not like the tame stuff that comes out of tubes. We all know that there could never be anything like a "color-pathos" or a pathology of color. How could "yellow as yellow" survive as a malarial tautology?" *Fifth Mirror displacement*, in *Incidents of Mirror-Travel in the Yucatan*, in *Writings*, pp.124-125.

[432] *Interview with Patricia Norvell, Recording conceptual art*, op. cit., pp. 124-125. —He follows: "Then I picked a place, and placed the mirrors directly into the ground, stuck them so that the mirrors reflected the sky. I was dealing, in a sense, with actual color as opposed to paint. Paint to me is matter, and more of a covering rather than color itself. Or color is light inflected with certain degrees of matter. So that I was interested in capturing the actual light on each spot… bringing it down to the ground surface. And this I did throughout. In different instances there were different kinds of supports used. Sometimes raw earth, sometimes tree limbs or other materials that happened to exist right on the site. Then each piece was dismantled after they were photographed." Smithson also develops

also realize a "fall" of light down to the ground: it reminds of the filmic fall from grace to duration at stake in *The iconography of desolation* in 1962.[433] He connects the Yucatan mirrors to another type of timelessness. This timelessness is put forward from the epigraph of the article on with a quote from Claude Lévi-Strauss's *The Savage Mind* where he uses the image of mirrors.[434] In his text, Smithson writes: "The mirror itself is not subject to duration, because it is an ongoing abstraction that is always available and timeless. The reflections, on the other hand, are fleeting instances that evade mesure. Space is the remains, or corpse, of time, it has dimensions." [435] The mirrors then appear as dual objects: they are abstractions, yet they reflect ephemeral events. They oscillate between an absolute aspect and a relative one. [436] In this oscillation, they reveal the process of abstraction.

"Ongoing abstractions", they are the reverse of the finite abstractions of museum paintings. Smithson develops these "ongoing abstractions" particularly in his projects involving film and in the reflections of his article *Frederick Law Olmsted and the dialectical landscape* published in *Artforum* in February 1973.[437]

---

on the mirror displacements in his *Interview with Paul Toner*: "They were also involved with natural light as opposed to pigment, which is basically a covering." *Writings*, p. 235.

[433] See Chapter 1 Part I. — The "raw" light on the ground is freed from any divine symbolism. Smithson connects the mirrors to the irrational, what he calls the "surd" and describes them as "negative holes.": "Smithson: it's like a negative hole. Wheeler: … a negative hole, it's… the end of the column without the column, it's really a strange image. And revealing on the other side, or interior to itself, a deeper or another more mercurial difficult and abstracting world than what we have managed to tame. The world for ourselves…" *Interview with Dennis Wheeler*, in *Writings*, p. 228. — They introduce to another dimension that has nothing to do with the classic approach of mirror as reflection of the real or imitation, a meaning that made the mirror a symbol of classical representation. Smithson views the mirrors as an almost extraterrestrial object, in any case irrational and incomprehensible. They reflect all that is elusive and inexpressible. We will develop on Smithson's '*surd*' in our Chapter 4 Part II.

[434] "The characteristic feature of the savage mind is its timelessness: its object is to grasp the world as both a synchronic and a diachronic totality and the knowledge which it draws their form is like that afforded of a room by mirrors fixed on opposite walls, which reflect each other (as well as objects in the intervening space) although without being strictly parallel." In *Incidents of Mirror-Travel in the Yucatan,* in *Writings*, p. 119.

[435] *Third mirror displacement*, ibidem, p. 122.

[436] Smithson emphasizes on this duality when in the sixth mirror displacement he focuses on a match box on which on one side is the Venus of Milo (absolute abstraction) and on the other side Pieter Brueghel's *The Blind leading the blind* (relative abstraction emphasizing on the fall). This match box echoes the mirrors he describes and indeed the mirror like the match box "give fire" with its light reverberations: "The match boxes in Mexico are odd, they are 'things in themselves'. While one enjoys a cigarette, he can look at his yellow box of 'classicos-De-Lujos-La central'. The match company has thoughtfully put a reproduction of Venus de Milo on the front cover, and a changing array of 'fine arts' on the back cover, such as Pedro Brueghel's *The Blind leading the blind*. The seal of leaves bellow continued to exfoliate and infoliate; it thickened to a great degree.", in writings, p. 127. — Below he writes: "But if one wishes to be ingenious enough to erase time one requires mirrors, not rocks." *Ninth mirror displacement*, ibidem, p. 131.

[437] The expression is repeated several times in his writings and interviews.

III- ONGOING ABSTRACTION: WHAT IS A SITE OF TIME?

1- Site of time: time, abstraction

a- Earth-maps

In *Incidents of Mirror-Travel in the Yucatan*, Smithson makes abstraction slip into a temporal dimension with what he calls an "earth-map" or "material map". What is it? The Gondwanaland earth map (*Earth Map, The Hypothetical Ice Cap of Gondwanaland)* that Smithson realizes consists in a miniature scale reconstruction of the shape of the continent Gondwana such as it was million years ago, before it splits into our five continents. He builds this hypothetical map in white limestone so that it becomes material.[438] As he explains, the maps of such non-existent continents are "lost in time" as they point to "non-existent sites": the spatial issue at stake with the nonsites now becomes a temporal issue (Fig. 2. 75 and Fig. 2. 76).[439] These "earth maps" aim at giving an awareness of a change that occurred over time, an almost inconceivable and unimaginable change as it encompasses millions of years. Smithson characterizes the awareness of this map today as a time "collision": it is a shock that creates a timelessness precisely because this change is so enormous, so colossal that one cannot grasp it but only know that it exists. In *A sedimentation of the mind*, Smithson coins the term "sites of time". The following year, he also approaches space as the materialized deposit, the sediment of time: "Space is the remains, or corpse, of time, it has dimensions."[440] Space appears as the reflection of time, which keeps an ungraspable dimension.

The geological transformation process in time can only be imagined, it is represented by a map (abstraction) in a book. Making this map "material" by realizing it in stone,

---

[438] "On this same site, the great Ice Cap of Gondwanaland was constructed according to a map outline on page 459 of Marshall Kay's and Edwin H. Colbert's Stratigraphy and Life History. It was an 'earth-map' made of white limestone. A bit of the carboniferous period is now installed near Uxmal. That great age of calcium carbonate seemed a fitting offering for a land so rich in limestone. Reconstructing a land was that existed 350 to 305 million years ago on a terrain once controlled by sundry Mayan gods caused a collision in time that left one with a sense of timeless. Timelessness is found in the lapsed moments of perception, in the common pause that breaks apart into a sandstorm of pauses. The malady of wanting to 'make' is unmade, and the malady of wanting to be 'able' is disabled. Gondwanaland is a kind of memory, yet it is not a memory, it is but an incognito land mass that has been unthought about and turned into a Map of Impasse. You cannot visit Gondwanaland but you can visit a 'map' of it." *Second Mirror Displacement, in Writings*, pp.121-122.

[439] "They're completely lost in time. So that the earth maps point to inexistent sites" In *Interview with Patricia Norvell*, in *Recording conceptual art*, op. cit, p. 128. — The same year, he realizes other maps of hypothetical continents: *Hypothetical continent in shell: Lemuria* in Sanibel Island, Florida, *Hypothetical continent (map of broken glass, Atlantis)*, in Loveladies, New Jersey, *Hypothetical continent in stone: Cathaysia*, Alfred, New Jersey.

[440] In *Third Mirror Displacement*, in *writings*, p. 122 (already quoted).

Smithson created another second degree abstraction. But above all, he shifts the issue of abstraction from one dimension to another, transforming the pictorial abstraction that relies on a spatial problem to a temporal abstraction.

b- The spiral: temporal abstraction *par excellence*

The shift from spatial abstraction to temporal abstraction reaches its full extent with Smithson's project for *The Spiral Jetty*. First of all, what does the form of the spiral imply for an artist in 1970?

This form is essential to abstraction as it sets up in the Russian avant-garde of the early twentieth century. The iconic example is Vladimir Tatlin's project of *Monument to the Third International* (1919-1925) structured around a double spiral (Fig. 2. 77).[441] At the opposite of Tatlin's utopian approach, Smithson's approach is skeptical. However, he does not abandon the thought of the Russian avant-garde. Indeed, he is interested in Lenin's reference on the shape of the spiral in order to characterize dialectics as a "development, so to speak, that proceeds in spirals, not in a straight line, a development by leaps, catastrophes and revolutions, breaks in continuity, the transformation of quantity into quality, inner impulses toward development imparted by contradiction and conflict, and various forces and tendencies acting on a given body or within a given phenomenon."[442] This characterization of dialectics implies a temporal dimension, it focuses on process: the image of the spiral is a figure of this time dimension.

Another determining consideration on the spiral is to be found with Ad Reinhardt. In 1946 Reinhardt realizes a cartoon entitled *How to look at a spiral?* in which he states in the introduction that "any attempt to make modern painting more intelligible and communicative must involve a serious consideration of the spiral." (Fig. 2. 78)[443] He recalls the millennial symbolic of the spiral meaning the perpetual renewal and turns it into a caricature showing how this form is found in the most trivial details of any object. Since the Russian avant-garde, the symbolism of the spiral underlies twentieth

---

[441] In our Chapter 3 Part I, we saw how the aspirations of this project were utopian, its spiral tended towards a new universal order combining cultural, technical, political progress. Although the spiral is twofold, letting imagine that it could possibly mean a movement of projection into the future followed by a move back into the past, the anticipatory and the memorial, this is ultimately a double forward movement as the aspirations of Tatlin are focused on progress.

[442] In *Talking with Robert Smithson*, Kenneth Baker, in *Robert Smithson, Spiral Jetty: true fictions, false realities*, Dia Art Foundation/University of California Press, 2995, p. 155.

[443] "Any attempt to make modern painting more intelligible and communicative must involve a serious consideration of the spiral. The spiral is a democratic thing — anyone can make one — but what exactly does it represent? What has it meant in the past? How can artists use it for the future?"

century abstract painting in the sense that it deals with a renewal of perception. With his black paintings, Reinhardt gives the spiral a very different sense: it no longer means a forward movement. Reinhardt's work relates to the shape of the spiral in the sense that the form indicates a movement of contraction and expansion that repeats endlessly. His timelessness with the repetition of a painting of the same size must be understood as the repetition of this movement of contraction/expansion. In one of the many documents Smithson gathered for the *Spiral Jetty* project, we find a development that confirms this double movement: "Spirals are formed from the outside and their primary movement is contraction (yang). When the center is reached, this changes into its opposite and expansion (yin) begins, which returns the movement to the origin, the original emptiness or non-matter which is the mother of matter" (Fig. 2. 79 and Fig. 2. 80).[444]

The spiral's expansion-contraction movement is exactly the one at work in the previous nonsites: *Spiral Jetty* is its outcome. As in the first nonsites, the whole work is built of three interrelated pieces: sculpture, film, text. In his text *The Spiral Jetty*, Smithson presents the spiral as the eye of the cyclone, a hole of timelessness in the sense that it avoids any notion of linear and historical relationship to time. He speaks of the site as an "immobile cyclone (…) a rotary that enclosed itself in an immense roundness". [445] With its infinite movement of expansion and contraction, the spiral appears as a form that makes us twirl up to prehistory: the film begins with dinosaur skeletons in the Museum of natural history and then the gyrations of the helicopter around the spiral aim, as H.G. Wells's time machine to project ourselves into a distant future.[446] *The Spiral Jetty* is the outcome of the "sites of time" that Smithson evokes

---

[444] Another document starts as follows: "Did you ever consider spirals to be the pattern of the universe? Imagine for a moment that everything is created in spirals which appear and dissolve of the ocean of our Infinite Universe. Galaxies are spirals and perhaps solar systems, atoms, pre-atomic particles and even universes are spirically arranged and structured. It is conceivable that our entire super-universe is nothing but a manifold of spirals within spirals within spirals within spirals, and that this never ceases, reaching as far as we dare to imagine or dream." — With *The Spiral Jetty* we see how the issue of anthropomormism in Smithson's work is complex: he explained that he rejected Barnett Newman's anthropomorphism but he was attracted by the Great Lake of Utah because of the red water, referring to blood. We will get back on that point in our Chapter 1 Part III.

[445] "As I looked at the site, it reverberated out to the horizon only to suggest an immobile cyclone while flickering light made the entire landscape appear to quake. A dormant earthquake spread into the fluttering stillness, into a spinning sensation without movement. This site was a rotary that enclosed itself in an immense roundness. From the gyrating space emerged the possibility of the Spiral Jetty." In *The Spiral Jetty*, in *Writings*, p. 146.

[446] In the text *The Spiral Jetty*, Smithson alludes to the time machine when he considers that the structure of any film reminds the archaic as its form is in spiral. The form involves in itself a collision of time: "everything about movie and movie making is archaic and crude. One is transported by this Archeozoic medium into the earliest known geological eras. The movieola becomes a 'time machine' that transforms trucks into dinosaurs. Fiore pulled lengths of film out of the movieola with the grace of a Neanderthal pulling intestines from a slaughtered mammoth. Outside his 13th street loft window one expected to see Pleistocene faunas, glacial uplifts, living fossils, and other prehistoric wonders. Like two cavemen we plotted how to get to the Spiral Jetty from New York City. A

with his *earth-maps*, it makes converge on a same point the contemporary and the archaic.[447] Due to its contraction-expansion movements, the archaic form crossing ages positions us in a timelessness: we are constantly projected to the earliest times, past or future.[448] With the spiral, classical linear relation to time collapses.

Pursuing the issues of the nonsites, the whole project for *The Spiral Jetty* masterfully offers degrees of abstraction of an archaic form, and these degrees are *mis en abîme*. After the construction of the spiral, Smithson imagined to project the film retracing its construction in the underground room (cave) of a small museum to be built on the site near the spiral, and to which one would access via a spiral staircase (Fig. 2. 81). The physical experience of the *Spiral Jetty* would have almost been juxtaposed with the shifts of scale offered by the film in the cave.[449] The movie in itself reveals a process of abstraction due to the shifts of scale offered by the camera from the helicopter, at times skimming the salt crystals of the jetty and then suddenly distancing away so that the spiral becomes a drawing and then a tiny sign. Here we find implemented with the film this problem of the miniature universe which was at stake in the Dallas-Fort Worth air terminal project (Fig. 2. 82). Thus the sculpture that one experiences, then the spiral staircase, the film being itself a spiral, filmed from the helicopter that turns in spiral, the etymology of the term helicopter also meaning "spiral", to the salt crystals that form in spiral: all this leads us into an infinite abyss — the meaning of the spiral — where the micro and the macro meet and where signifiers and signified become one.[450]

---

geopolitics of primordial returns ensued. How to get across the geographies of Gondwanaland, the austral sea, and Atlantis became a problem." In *The Spiral Jetty*, *Writings*, p. 150.

[447] We find again a connection with McLuhan who noted that one of the most innovative architecture of the time, Frank Lloyd Wright's Guggenheim museum, had the shape of a spiral, a symbol of electric energy: "The entire message is then traced and retraced, again and again, on the rounds of a concentric spiral with seeming redundancy. One can stop anywhere after the first few sentences and have the full message, if one is prepared to 'dig' it. This kind of plan seems to have inspired Frank Lloyd Wright in designing the Guggenheim Art Gallery on a spiral, concentric basis. It is a redundant form inevitable to the electric age, in which the concentric pattern is imposed by the instant quality, and overlay in depth, of electric speed." In Marshall McLuhan, *Understanding Media: the Extensions of Man*, chap. 2, *Media Hot and Media Cold*, The MIT Press, 1964-1994, p. 26.

[448] "The mere sight of the trapped fragments of junk and waste transported one into a world of modern prehistory. The products of a Devonian industry, the remains of a Silurian technology, all the machines of the Upper Carboniferous Period were lost in those expansive deposits of sand and mud." Ibidem, pp. 145-146.

[449] He then proposes as an alternative to project the film on a ferry.

[450] Smithson's project of grotto for the projection of the film *Spiral Jetty* follows his project for a *Cinema Cavern* in 1971. The work first appears as a response to the utopianism of Gene Youngblood's *Expanded Cinema* as well as a critique of a certain tautologism of contemporary art pursuing the modernist ideology. In the *Cinema Cavern*, the film retracing the excavation of the cave is to be projected in the cave for which Smithson also thinks about seats excavated in the rock. The principle is the same as that of *Box with the sound of its own making* by Robert Morris in 1961, a wooden box which houses the noise of his construction time. Smithson's point is to propose a "truly underground cinema", a literal pun on the so-called experimental "underground cinema" of the time ("What

2- Central Park's ongoing abstraction

In his essay *Frederick Law Olmsted and the Dialectical Landscape* published in *Artforum* in February 1973, Smithson focuses on the Central Park project, conceived in the second half of the nineteenth century by Frederick Law Olmsted and Calvert Vaux. He presents it as the first modern site of time. In *A sedimentation of the mind*, he writes: "The gardens of history are being replaced by sites of time"[451] Discovering the various phases of the Central Park project, the way the work was thought considering the geology of the terrain and how maps and photographs are imbricated, Smithson recognizes some essential points at stake in his own approach since the Dallas Fort Worth air terminal project. The essay is touching: it is the last of Smithson's texts published during his lifetime and if one remembers the newspaper clipping he annotated with the overlay of the map of Dallas-Fort Worth airport on that of Central Park (Fig. 2. 83)[452], we feel that with this article a kind of loop is looped, outlining at the same time the new openings that Smithson was then starting to develop for his plastic projects. [453] Furthermore, looking back at the photograph on the other newspaper clipping that he annotated, with the airport site on work, it is striking to see how Smithson sees Central Park's project in the same way: "*If viewed as a 'discrete stage' it becomes an abstract work of art that vanishes as it develops*" (Fig. 2. 84 and Fig. 2. 85). What makes Central Park a site of time? Smithson indicates it from the beginning of his article when he shows that Olmsted and Vaux "considered that glacial aftermath along its geological profiles." They thought the construction of

---

I would like to do is build a cinema in a cave or an abandoned mine, and film the process of its construction. That film would be the only film shown in the cave. The projection booth would be made out of crude timbers, the screen carved out of a rock wall and painted white, the seats could be boulders. It would be a truly 'underground' cinema." In *A Cinematic Atopia*, in *Writings*, p. 142.) Showing the excavation process of the cave is to reveal a process of abstraction. Again, Smithson plays on the double meaning of the word: the abstraction of the material from a location and a sophistication process. Smithson's proposal aims to reveal how the movie cavern, as archaic as it is, is an elaborate form, thus revealing by indirect reflections how with their smooth walls, movie theaters are sophisticated devices. He develops this point in *A cinematic Atopia* published in *Artforum* September 1971, before Roland Barthes's reflections on the same theme in *En sortant du cinéma*, 1975.

[451] In *A sedimentation of the mind : earthprojects, writings*, p. 105. His essay on Frederick Law Olmsted follows his visit at the Whitney Museum's exhibition on Central Park in celebration of the hundred and fiftieth anniversary of the birth of the famous architect.

[452] See our Chapter 2 Part II.

[453] Before the writing of this article, Smithson had already thought about a project that relates to Central Park: *Floating Island* in 1970. The project remained unrealized during his lifetime, it was realized in 2005 on the occasion of the retrospective of Smithson's work at the Whitney Museum in New York. It consisted in the construction of a kind of miniature of Central Park in the form of a floating island navigating on the Hudson River, guided by a boat. *Floating Island* consisted actually in the displacement of a piece of rock mass and vegetation from the park. It is an island turning around the Manhattan island, of which Central Park is the heart. Thus *Floating Island* works as a mirror of both Central Park and Manhattan, an abstraction of abstraction.

the park in relation to the existing terrain, its geological history and its possibilities. [454] Smithson was particularly impressed by the fact that the work and changes of the terrain had been documented with photographs, enabling to understand the successive transformations. He thus views Central Park as a precursor of process art as well as land art that develop at the time. [455]

Central Park is a site of time because we can grasp or imagine what it keeps from the prehistoric times. This was made possible because, evacuating tons of earth, architects made reappear geological strata of post-glacial period which were buried under the wasteland from which they worked. Indeed, when one gets in Central Park by some entries, one goes down, one enters an ancient geological age. Central Park appears as a natural archaeological site shaped with nineteenth century's handling techniques. One understands Central Park as a site of time through photographs and maps tracing back the transformations of the terrain. Olmsted and Vaux used photography in its very beginning to track these changes: they reveal the "ongoing development" of the site. Smithson speaks of "a process of ongoing relationships existing in a physical region". [456] This is actually the "ongoing abstraction" he deals with for his nonsites.

Central Park is to be viewed as a type of temporal nonsite where the experience of the park's rock masses is to be confronted with photographs documenting the transformation of the site. The photographs and maps project us back to previous states of the site in the same way that the interior nonsite projects us towards the site. From a mental projection towards another place, it is now a mental projection towards another time. [457]

---

[454] "Back in the 1850's, Frederick Law Olmsted and Calvert Vaux considered that glacial aftermath along its geological profiles. (…) Olmsted and Vaux studied the site topography for their proposed park called 'Greensward'. In Greensward presentation sketch No. 5 we see a 'before' photograph of the site they would remake in terms of earth sculpture. It reminds me of the strip-mining regions I saw last year in southeastern Ohio. This faded photograph reveals that Manhattan island once had a desert on it—a manmade wasteland." In *Frederick Law Olmsted and the Dialectical Landscape*, in *Writings*, p. 158. — This is what he calls a "dialectical" approach. However, as we saw in our Chapter 1 Part II, his use of the word "dialectic" is not to be understood in the Hegelian sense of thesis, anti-thesis, synthesis. There is no synthesis in Smithson's work.

[455] "Olmsted's parks exist before they are finished, which means in fact they are never finished; they remain carriers of the unexpected and of contradictions on all levels of human activity, be it social, political or natural. (…) The maps, photographs, and documents in catalogue form and recently on exhibition at the Whitney Museum of American Art are as much part of Olmsted's art as the art itself. The catalogue's illustrative portfolio by William Alex, and an informative text by Elisabeth Barlow make one aware of an ongoing development of Central Park as a dialectical landscape. Here the documentary power of the photograph discloses a succession of changing land masses within the park limits. The notion of the park as a static entity is questioned by the camera's eye. The portfolio brings to mind Dziga Vertov's documentary montages, and suggests that certain still photographs are related to the dialectics of film." Ibidem, p. 160.

[456] Ibidem, p. 160.

[457] Note that in 1965 artist Allan Sonfist proposes his work *Time Landscape*, which was realized in New York in 1978. It is a vegetation square of about 7,62 x 12,19 meters at the north-west corner of La Guardia Place and West Houston Street. It consists in the plantation of indigenous plants from the New York region that were on the city's

In his article *Frederick Law Olmsted and the dialectical landscape*, Smithson juxtaposes photographic views taken during the construction of the park in 1862 and soon after in 1900, with views of the same places photographed by himself in 1972 (Fig. 2. 86 and Fig. 2. 87). The old photographs that he selected were taken with a stereoscopic camera, i.e. two photographs taken simultaneously whose viewpoints slightly diverge. At the time, these photographs of the park — the result of the latest technological prowess and great curiosity — were intended to be viewed in a stereoscope, thereby producing a three-dimensional effect. Smithson takes off the right image and replaces it with his own of 1972. If one were to see these pictures in a stereoscope, there would be a collision: due to the time distance separating them, we would of course not have the three-dimensional effect. The superposition of these images in the device would be a temporal compression. In Smithson's article, the juxtaposition of the two images allows to complete in imagination their time interval. Central Park's ongoing abstraction realizes what he declares to be an essential point of all great art: to "projects you over millennia". [458]

In his 1967 text *Some voids thoughts on Museums*, Smithson writes that "History is representational, while time is abstract". [459] This phrase in 1967 announces and summarizes the operations he realizes from his nonsites on: de-categorizing the problem of artistic abstraction, using the word "abstract" in the common sense, Smithson simultaneously accomplishes a collapse of the relationship to history, a periodization of time of which artistic abstraction is only a moment. The issue of abstraction shifts from space to time. What are the new relations that imply such a dislocation? We will look into these in the next chapter by focusing on the issue of the passage from one dimension to another, an essential hinge to Smithson's approach.

---

location in the pre-colonial time. The work also deals with the projection toward a remote time. In a way, it is also a site of time, in spite of the fact that there is no duality between a site and various photographic materials and maps enabling to grasp the transformations of the terrain.

[458] "I think the strongest art really projects you over millennia now; it really encompasses a lot of time and not just somebody's specious idea of history that you're living up to. It's getting away from a kind of humanist idea of history too, you know, man-centered history. I think that the more your work can be made to resonate or suggest, the stronger it is, and so it's simply a matter of personal talent. You know talent is cheap, there are thousands of talents. It's a matter of setting up that contact with age upon age, and any way one can arrive at that is satisfactory to me." In *Talking with Robert Smithson*, Kenneth Baker, in *Spiral Jetty: True fictions, false realities*, Dia Art Foundation/University of California Press, 2005, p.158.

[459] *Some voids thoughts on Museums, Arts Magazine*, February 1967, in *Writings*, p. 41.

PART TWO

CHAPTER 4

THE SHIFT OF DIMENSION:

FROM METAPHOR TO FOURTH DIMENSION

σφαῖρα, *sphaîra*: globe, ball, playing ball, terrestrial globe.

When a clock is seen from the side, it no longer tells the time
Marcel Duchamp

In one dimension, figures are mirrored by a point, in two dimensions, by a line. In three dimensions, by a plane. In four dimensions, by a solid. And so on for the higher spaces. In every space of n dimensions the 'mirror' is a 'surface' of n-1 dimensions. In every space of n dimensions an asymmetric figure can be made to coincide with its reflection by rotating it through a space of n+1 dimensions.
Martin Gardner, *The Ambidextrous Universe*[460]

Let us jump back in time to almost exactly three hundred years before Robert Smithson's first nonsite. Let us look at a work in which these issues of "degrees of abstraction" get a surprising resonance. *The Geographer*, a painting by Vermeer from 1669 deals with shifts of dimensions between different types of maps in the painting (Fig. 2. 88). On the table in the foreground, the oriental carpet is carelessly shoved and folded to make space for the paper sheet on which the geographer is about to draw a map. His hand is suspended, he looks through the grid of the window, watching the outside world that he however does not need to observe for his map drawing. Vermeer here refers clearly to the Latin *mappa* meaning fabric, tablecloth, creating an analogy between the oriental carpet placed on the table as a tablecloth and the map that takes its place on the table.[461] Both are constructions of networks. In his

---

[460] Martin Gardner, *The ambidextrous universe*, Basic Books, 1964, p. 172.
[461] In 17th century paintings, an oriental carpet placed on a table means a sign of wealth.

160

paintings, Vermeer deals repeatedly about analogies between map and painting, the representation of maps acting as a parable of the painting itself. [462] Fabric is also the basic material of painting, a network of threads on which is built a network of signs. In *The Geographer*, what interests us lies in the background of the painting: above a wardrobe, we find a globe, and on the wall right next to it, there is another two-dimensional map. The juxtaposition of the globe and the two-dimensional map in the background gives the idea of a shift of dimension as well as a shift of scale. *The Geographer* deals with the process of building the map — which is a process of abstraction: the tablecloth, the blank paper, the two-dimensional map and the "three-dimensional" map (globe) together enable to grasp how any map like any painting is the result of a mental construct, a work of abstraction. [463] Vermeer displaces signs from one field to another. [464]

Let us now move forward to 1967, shortly before Robert Smithson introduces the concept of nonsite. In his text *LANGUAGE to be LOOKED at and/or THINGS to be READ*, he writes: "References are often reversed so that the 'object' takes the place of the 'word'. A is A is never A is A, but rather X is A. The misunderstood notion of a metaphor has it that A is X — that is wrong. The scale of a letter in a word changes one's visual meaning of the word." [465] How may a metaphorical operation not be "A is X"? Why does Smithson say that this is wrong? In the text *A provisional theory of nonsite* in 1968, Smithson makes a curious use of the term "metaphor". He characterizes his nonsite as a "three-dimensional metaphor", then stating that between the site and the nonsite "exists a space of metaphoric significance", and that "everything between the two sites could become physical metaphorical material devoid of natural meanings and realistic assumptions." He says that the site-nonsite duality introduces "an entirely 'new sense of metaphor' free of natural or realistic expressive content". [466]

What is metaphor for Smithson, or rather what does Smithson make with metaphor? What is the relationship between metaphor and shift of dimension?

---

[462] Vermeer's most famous painting on that point is *The Art of Painting* (1662-1665). We find maps in the background of many of his paintings. For example *Young woman with a water pitcher* (1662, Metropolitan Museum New York), and *The Astronomer* (1668) from the Musée du Louvre, which was for long time considered to be the counterpart of *The Geographer*.

[463] We will see that Smithson calls "abstraction" all that has to do with intellectual construction. Using this terminology, we can say that any map or any representational painting is an "abstraction".

[464] Speaking literally, we can say that he makes metaphors (as to transport from one place to another).

[465] In *LANGUAGE to be LOOKED at and/or THINGS to be READ*, in *Writings*, p. 61. — The text is the press release of the exhibition he organized at the Dwan Gallery in 1967.

[466] In *A provisional theory of nonsites*, 1968, in *Writings*, p. 364.

Let us see how with the concept of metaphor, Smithson develops an aesthetic in which the shift of scale is a pivot (I). By focusing on Marcel Duchamp's influence on Smithson with the introduction in the artistic field of scientific theories on the fourth dimension, we will see how Smithson builds his art in relation with these theories (II), and what these issues become in his own work (III).

I- ROBERT SMITHSON'S NEW SENSE OF METAPHOR

1- Physicality of metaphor and rule of metaphor: ricœurian view

Considering Smithson's strange use of the word "metaphor", we may ask: what is a metaphor? What is a three-dimensional metaphor? Why does Smithson use this term from rhetoric and linguistic fields to deal with plastic issues?

A first thing: metaphor is a discursive operation, however, it is a mental construct based on a spatial displacement. This is what Paul Ricœur notes when he says that "*phora,* as we know, is a kind of change, namely change with respect to location."[467] He adds that "*epiphora* of a word is described as a sort of displacement, a movement 'from . . . to . . .' This notion of *epiphora* enlightens at the same time as it puzzles us."[468]

Any metaphor involves the displacement of a word from a field where it is commonly used to another where it is inappropriate. The word is abstracted from its original context and placed into another context where it creates a new meaning. The movement of metaphor consists in an abstraction. At the same time it connects two realities, creating between them a relation of analogy.[469] As metaphor creates a relation that did not exist before, it does not represent but it *figures*, as a new mental image is created.[470] Paul Ricœur shows how metaphor encompasses a much wider

---

[467] Paul Ricœur, in *The Rule of Metaphor*: *the creation of meaning in language*, translated by Robert Czerny with Kathleen McLaughlin and John Costello, SJ, Routledge classics, 2004, p. 18. (first published as *La métaphore vive*, Seuil, 1975).
[468] Ibidem, p. 17.
[469] Linguists then speak of "simile" between these two realities.
[470] The ambiguity of metaphor is that it is at the limit of representation, the operation that is the task of two other rhetorical figures: synecdoche and metonymy, which deal respectively with relations of correspondence and connection. In his *Technique d'analyse picturale*, psychoanalyst Guy Rosolato characterizes very well the metaphor as a "non-representative sign" while metonymy is a representative sign. He explains that with metonymy, a chain is contracted while with metaphor, a chain is not enough, two are required, and a signifier from one chain must necessarily replace the signifier of the other chain. Guy Rosolato gives the following example to distinguish metonymy from metaphor: for metonymy, « *je bois un verre* » is the contraction of *je bois – l'eau contenue dans – un verre*. Whereas with metaphor, we get these two chains: *je bois l'eau de mer ; je bois une tasse*

field than metonymy and synecdoche: whereas these latter two figures are restricted to relations between names, all types of words belong to the realm of metaphor, it "takes in far greater territory" says Ricœur. Quoting Pierre Fontanier he shows in his study that metaphor does not even refer to objects but consists "in presenting one idea under the sign of another that is more striking or better known".[471] Thus metaphor gives an important place left to imagination, keeping an indeterminate nature open to speculation. Paul Ricœur notes that Pierre Fontanier already coined the term "physical metaphor" when characterizing his five species of metaphors: "the physical metaphor as a transfer in which two physical objects (whether animate or inanimate) are compared" [472]

The fact that metaphor does not focus on objects enables to understand Smithson's use of the term as he often declares how much he tends in his plastic approach to distance from the object in favour of a focus on the process as work: "my work has always been an attempt to get away from the specific object. My objects are constantly moving into another area."[473] Metaphor as both discursive and physical operation, making things oscillate between the physical and the abstract, particularly resonates with the concerns of his nonsites.

Ricœur says that metaphor achieves a kind of "twist": it is a plastic operation. How does this twist come out in Smithson's work? What Ricœur calls "*métaphore vive*" is when it is both "event and meaning". Event is what he characterizes as a "twist" that creates a new meaning in a present context.[474] The experience of metaphor is thus a

---

de thé : je bois la tasse —See Guy Rosolato, *Technique d'analyse picturale*, in *Essais sur le symbolique*, Gallimard, 1969, p. 141.

[471] He pursues that "Analogy operates between ideas; and idea itself is to be understood not 'from the point of view of the objects seen by the spirit' but 'from the point of view of the spirit that sees'. For it is in this sense only that an idea can be called 'more striking or better know'" In *The Rule of Metaphor, op. cit.*, p. 66. — Thus he explains that correspondence is a relationship between objects, while resemblance is a relationship between ideas.

[472] Ibidem, p. 67.

[473] In *Interview with Paul Toner*, *Writings*, p. 240. —He follows: "There is no way of isolating them—they are fugitive. They are things, rather than definable presences. Working with non-illusionistic materials, like opaque materials, breaks down that whole idea of certainty which is in the 'object'." He also develops the point in his *Interview with Patricia Norvell:* "An object to me is a product of thought, you know. It doesn't necessary signify the existence of art. So that I would say that objects are about as real as angels are real. (…) my view of art springs from a dialectical position that deals with, I guess, whether or not something exists or doesn't exist. Those two areas, those two paths—the existent and the non-existent." In *Recording conceptual art*, op. cit., p. 124.

[474] He writes: "I would rather say that metaphorical attribution is essentially the construction of the network of interactions that causes a certain context to be one that is real and unique. Accordingly, metaphor is a semantic event that takes place at the point where several semantic fields intersect. It is because of this construction that all the words, taken together, make sense. Then, and only then, the metaphorical *twist* is at once an event *and* a meaning, an event that means or signifies, an emergent meaning created by language. (…) In the metaphorical statement (we will not speak any longer of metaphor as word, but of metaphor as statement), the contextual action creates a new meaning, which truly has the status of event since it exists only in the present context." In *The Rule*

shift of worldview, "its aim is illusion, mainly by presenting the world in a new light" says Ricœur. It affects physically and mentally the one who experiences it.

Metaphor as event and "twist" is of particular interest in relation with the nonsites as Smithson insists that they are collisions of intellect and matter. He emphasizes an essential point at work with metaphor: the shift of dimension, to see the world in a new light, by focusing on the very process of the twist. Note that the metaphorical operation is at the foundation of surrealist works since Lautréamont writing in *Les chants de Maldoror* "beautiful as the chance meeting on a dissecting-table of a sewing-machine and an umbrella".[475] What is Smithson's relation with Surrealism? We will get back to this issue later in this chapter. For the moment, let us consider that the term "three-dimensional metaphor" may be understood literally in relation with the "*phora*": it is a displacement of the raw material that was abstracted from the site and placed in the museum room.[476] Moreover, Smithson also calls his nonsites "three-dimensional perspectives", the term is in itself a metaphor: it shows a passage from the second dimension to the third dimension. What involves Smithson's use of such a term?

2- Three-dimensional metaphor and three-dimensional perspective

Between 1966-1967, before the development of his nonsites, Smithson realizes a series of works entitled *Alogons* with which he already works with the issue of a reversal of perspective. He made three variations on a same type of structure. His first *Alogon* was shown on the occasion of the *10* exhibition organized by Ad Reinhardt at the Dwan Gallery from 2 to 29 October 1966. It is a suite of seven structures on the wall, each of which resembles a small staircase. The structures follow one another in an ascending or descending order depending on the position one occupies in relation to the wall of the room. In the occasion of his first solo exhibition at the Dwan Gallery from November 1968 to January 1969, Smithson shows two other sculptures built following the same type of modular succession: *Alogon #2* and *Plunge*. *Alogon*

---

of Metaphor, op. cit., pp. 114-115.

[475] In his *Manifeste du surréalisme* André Breton emphasizes on the collision of two distant realities as follows*:* « la valeur de l'image dépend de la beauté de l'étincelle obtenue ; elle est par conséquent, fonction de la différence de potentiel entre les deux conducteurs. Lorsque cette différence existe à peine comme dans la comparaison, l'étincelle ne se produit pas. » cité par Arturo Schwartz, in *Marcel Duchamp, la mariée mise à nu par les célibataires, même*, éditions George Fall, 1974, p. 45.

[476] The other displacement with the nonsite is that of the map which involves a shift of scale.

#2 uses the same principle of reversed staircase structures as *Alogon*, the installation consists in a series of ten structures, this time laid on the ground. Like *Alogon*, they follow one another in an ascending or descending order depending on the position one occupies in the room. The installation is to be walked around like the minimalist sculptures of the time, thus at first sight it seems that there is apparently no favorite point of view (Fig. 2. 89 to Fig. 2. 93).[477] Then when viewed from a certain point, we physically experience a regression of the units. In a two-dimensional perspective, this would have lead to a vanishing point. Smithson indeed characterized his *Alogon* as "three-dimensional perspectives": they literally translate into volume the principles of two-dimensional perspective. In contrast, when you stand on the other side, the data is reversed: the smallest structure at your feet, the largest in the end, the effect is close to that of looking at a perspective in a mirror. For the poster announcing the exhibition, Smithson chooses to take a photograph of the *Alogon* that was hanging on the wall in the *10* exhibition. Therefore there is a rather confusing discrepancy between the photograph of the structures on the wall and the experience of a set of similar structures on the ground in the exhibition room: it suggests a shift of dimension. Smithson describes this work as "the break with logic, the break with the Gestalt"[478] He explains that "the title *Alogon* (…) comes from the Greek word which refers to the unnamable and the irrational number."[479] With *Alogon #2* Smithson clearly tends to reverse the rationality of perspective representation. In three dimensions and with the possibility to circle around the work, the perspective becomes aberrant.[480] By looking at the work from one side, it is as if we were in the presence of a three dimensional

---

[477] The biggest is 91,44 cm high, the lowest, 30,4 cm. The whole installation mesures 846 cm.

[478] *Interview with Dennis Wheeler, Writings*, p. 199: "*Alogon* is something that suspends rationality (..) there are three *Alogon* works, and that's sort of the break with logic, the break with the gestalt. In other words, you're into this area of dedifferentiation that Ehrenzweig talks about where the gestalt becomes something else. The entropic aspect comes in. Dedifferentiation is his word." — This break with the Gestalt is particularly important in that it enables to differentiate his works from minimalist works, namely Robert Morris's *Untitled (Three L-Beams)* (1965). Ann Reynolds noted that Gestalt gets broken with Smithson as his structures are not regular, we do not have the unity at work when turning around the *Three L-Beams*. See Ann Reynolds, *Robert Smithson: Learning from New Jersey and Elsewhere*, op. cit., pp. 24-25.

[479] He follows: "I mean there was always a sense of ordering, but I couldn't really call it mathematical notation. But there was a consciousness of geometry that I worked from in a kind of intuitive way. But it wasn't really in any way notational." In *Interview with Paul Cummings*, 1972, Archives of American Art.

[480] With *Plunge,* the succession of structures is positioned in the reversed order of that of *Alogon #2*. Moreover, with this work, Smithson adds a movement in time: at four times during the exhibition duration, he pivoted of 90 degrees the structures of *Plunge*. This is what notes Ann Reynolds: "the first time after eight days, the second after nine days, the third after ten days, and the final time after eleven days. This process, which is documented in the pamphlet Smithson designed to accompany the exhibition, stretches out and slows down the intervals between his physical alteration of the work and the resulting changes in the work's appearance in the gallery, even as his rearrangement maintain a logical perspective view from the same number of limited vantage points. Ironically, these rearrangements don't really alter the perceptual experience of the work even as time passes." In Ann Reynolds, *Robert Smithson: Learning from New Jersey and Elsewhere*, op. cit., pp. 26-27.

perspective, but from the point of view of a mirror: an impossibility. A question will arise: isn't *Alogon #2* a three-dimensional image that acts as the reflection of a four dimensional perspective that is invisible in the room?

II- THE FOURTH DIMENSION: FROM MARCEL DUCHAMP TO ROBERT SMITHSON

1- Marcel Duchamp's influence

Smithson refuted the "A is X" of the concept of metaphor.[481] Indeed when the scale of an object shifts, can we say that "A is X" as A still remains A but gets bigger or smaller? With the shift of dimension, the same problem is at stake. In his library, Smithson had *The ambidextrous universe: mirror asymmetry and time-reversed worlds*, an essay by mathematician and writer Martin Gardner published in 1964, in which a chapter is dedicated to the fourth dimension. Gardner explains that when an *n* dimension object passes to an *n*+1 dimension, it remains this "object" while being different. This appears in his characterization of the shift of dimension: "In one dimension, figures are mirrored by a point, in two dimensions, by a line. In three dimensions by a plane. In four dimensions, by a solid. And so on for the higher spaces. In every space of *n* dimensions the 'mirror' is a 'surface' of *n*-1 dimensions. In every space of *n* dimensions an asymmetric figure can be made to coincide with its reflection by rotating it through a space of *n*+1 dimensions."[482]

Smithson was interested in metaphor for its ability to shift an idea or object into a new dimension. He also noted how the developments of mathematical theories on the fourth dimension (and higher dimensions) are as speculative as metaphorical operations: "Fuller was told by certain scientists that the fourth dimension was 'ha-ha', in other words, that it is laughter. Perhaps it is."[483] Metaphor and shift of

---

[481] "References are often reversed so that the 'object' takes the place of the 'word'. A is A is never A is A, but rather X is A. The misunderstood notion of a metaphor has it that A is X - that is wrong. The scale of a letter in a word changes one's visual meaning of the word." in *LANGUAGE to be LOOKED at and/or THINGS to be READ*, in *Writings*, p. 61. (quoted above).

[482] Martin Gardner, *The ambidextruous universe*, p. 172.

[483] In *Entropy and the new monument*s, *Writings*, p. 21. — the point is confirmed by Martin Gardner in *The ambidextrous universe*, Smithson underlined a passage of the following quote : "Although the notion of a fourth dimension had occurred to mathematicians, it had been quickly dropped as a fanciful speculation of no possible value. No one had hit on the fact that an asymmetric solid object could (in theory) be reversed by rotating in through a higher space; it was not until 1827, eighty years after Kant's paper, that this was first pointed out by

dimension consist in the same type of movement: to displace an object from one domain to another.

We must now get back to Smithson's relation to Surrealism and ask this question: by focusing on the metaphor and the importance of imagination, isn't he following the line of the Surrealists? He explains that what differentiates his approach from Surrealism is his search for an objective aspect in contrast with the Surrealism's emphasis on the subjective and unconscious. Indeed he declares: "Surrealism originates in the head, in dreams and in nightmares and the subconscious. But I am concerned with the physical remains of the actual world, and I draw my motives from that rather than from an interior kind of introverted exploration of internalized fantasy. The whole investigation is external. I'm not interested in dredging up my personal psychological situations. And in many respects I think abstraction is basically psychic, I mean it's based on the psyche, reducing things to a surface, something that's understandable in terms of the head, and I think that's why a lot of abstractionists sort of emerged from a kind of surrealism. I don't subscribe to Surrealism because I am concerned with a phenomenon that doesn't originate in my head, it originates in the world; there's a difference, I think."[484]

In this he meets Marcel Duchamp's motivations. In the early twentieth century Duchamp got interested in scientific theories on the fourth dimension and saw in them an alternative to the problem of the subjective, a way to "replace the old subjective aestheticism with something newer, more objective." noted Arturo Schwartz.[485] Duchamp understood how thinking these theories in artistic terms would raise the possibility of a new type of objectivity and would enable to consider "art in a wider perspective", leaving aside the conventional studio issues (Fig. 2. 94).[486]

August Ferdinand Moebius, the German astronomer for whom Moebius strip is named." In *The ambidextrous universe*, op. cit., p. 163.

[484] In *Talking with Robert Smithson*, Kenneth Baker, in *Spiral Jetty: true fictions, false realities*, Dia Art Foundation/University of California Press, 2005, p. 153.

[485] Arturo Schwartz, in Marcel Duchamp, op. cit., p. 36.

[486] He remembers of their impact as follows: « J'envisageais l'art sous un angle plus large. On discutait à l'époque de la quatrième dimension et de la géométrie non-euclidienne. Il s'agissait, le plus souvent, de points de vue d'amateur… Mais malgré toutes nos méprises, ces nouvelles idées nous libéraient du langage conventionnel — de nos platitudes de café et d'atelier. » Marcel Duchamp, in *Interview with Sweeney*, quoted by Arturo Schwartz, in Marcel Duchamp, op. cit., p. 35. — Duchamp refers to the fourth dimension to characterize *The Bride Stripped Bare by the Bachelors, Even*: « tout ce qui est tridimensionnel est la projection dans notre monde d'un monde à quatre dimensions, et ma Mariée, par exemple, serait la projection en trois dimensions d'une mariée à quatre dimensions. Parfait. Alors, puisqu'il s'agit d'un verre, c'est plat, et ma Mariée est donc la représentation bidimensionnelle d'une Mariée tridimensionnelle, correspondant elle-même à une autre, en quatre dimensions, projetée dans le monde tridimensionnel de la Mariée. » In *Entretien avec George et Richard Hamilton*, quoted by Arturo Schwartz, op. cit., p. 35.

Duchamp had a great interest in *Science and Hypothesis* (1902) by Henri Poincaré. In this book Poincaré distinguishes between conventional geometric space and what he calls the representative space with visual, tactile and in motion components. According to Poincaré the representative space derives directly from the senses and it is always dependent on geometric space, saying that in geometric space we do not represent external objects but we reason on these objects as if they were situated in geometrical space.[487] From this distinction on, Poincaré explains his concept of four-dimensional space: to the time-space of the third dimension, he adds another data, the "muscular sensation", the sense of touch and notes that "the passage from one perspective to another is often accompanied by muscular sensations."[488]

This conception of the fourth dimension as being linked with touch, something that can be felt but remains invisible is essential to Duchamp when he speaks of a "tactile recognition" of the invisible fourth dimension into the third dimension.[489]

From this principle of "tactile recognition" he coins his concept of "infra-thin" (*inframince*) that he characterizes as an in-between dimension, or what he calls an "operator" (*conducteur*).[490] This is a dimension that is not commensurable — "this is not a precise laboratory measurement" — and it is at the limit of perception and imagination.[491] Duchamp speaks of a four dimensional sense of touch that can be felt by intuition in the third dimension. The *inframince* is thus a kind of *twilight zone* to borrow the title of a famous television series of 1959.[492]

---

[487] He writes: « nous ne nous représentons donc pas les corps extérieurs dans l'espace géométrique, mais nous raisonnons sur ces corps comme s'ils étaient situés dans l'espace géométrique » Henri Poincaré, *La science et l'hypothèse*, Ebooks libres et gratuits, 2011, p. 64.

[488] « nous constatons en même temps que le passage d'une perspective à une autre est souvent accompagné de sensations musculaires. » Ibidem, p. 74.

[489] He develops it as follows: "In a continuum, any space is perceived by a 4-dim'l sense of touch as a sort of projection on a plane recording the different 3-dim'l coordinates. — The perceived object is no longer the point, as to the ordinary sense of touch, but rather a sort of tactile expansible sphere assuming all 3-dim'l shapes." In *A l'Infinitif*, in *The Essential writings of Marcel Duchamp*, edited by Michel Sanouillet and Elmer Peterson, Thames and Hudson, 1975 p. 94. — FV in *Duchamp du signe*, Champs Flammarion, 1994, p. 132.

[490] The *inframince* as fourth dimension is graspable in this note by Duchamp: « reflets dépolis donnant un effet de réflexion—miroir en profondeur—pourraient servir d'illustration optique à l'idée de l'infra mince comme 'conducteur' de la 2ᵉ à la 3ᵉ dimension » In Marcel Duchamp, *Notes*, Flammarion, champs art, 1999, p. 47. Indeed Duchamp characterizes the surface of *La mariée mise à nu par les célibataires, même* as a « plan-charnière », a "hinge-plan". Catherine Perret explains that the *Grand Verre* acts as a "hinge for the gaze" (« un gond pour le regard »), enabling to realize a "virtual" (mental) fourth-dimensional image. See Catherine Perret, *Les porteurs d'ombre — mimésis et modernité*, éditions Belin, 2001, pp. 138-139.

[491] In particular he gives the example of the gap between the detonation of the gun and when the ball hits the target, a moment that we do not see but that we imagine. « séparation *infra mince entre le bruit de détonation d'un fusil (très proche) et la marque de l'apparition de la marque de la balle sur la cible. (distance maximum 3 à 4 mètres. — Tir de foire)* ».

[492] The trailer of this television series calls this "twilight zone" the "fifth dimension" in order to add a surprising aspect and calls it "the dimension of imagination", which lets think that it would be after the fourth dimension and understood as a time dimension. Thus it is distinct from Duchamp's fourth dimension which mingles imagination, time and intuition. The trailer of *The Twilight Zone* states: "there is a fifth dimension beyond that which is known

In *The ambidextrous universe*, Martin Gardner explains that if we cannot envision an Euclidean type of hyperspace, it is because we keep stuck in our assumptions related with three-dimensional space, a space to which we add the time dimension and that we then consider as a fourth dimension. This makes us think of a non-Euclidean space or topological space.[493] Poincaré proposes to consider the four-dimensional space or hyperspace as a space-time to which is added the data of sensation, thus imagination, time and sensation get mingled together. Duchamp's *inframince* works on Poincaré's principles, it involves the tactility of intuition, a form of sensation.

How does Smithson deal with the fourth dimension in his works? How does he pursue the Duchampian "tactile recognition"?

2- Robert Smithson's "art by casting a glance": the Ready-made of sight

a- Suspension of meaning

In *Entropy and the New Monuments* in 1966, just after recalling that Buckminster Fuller had been told that the fourth dimension was "ha-ha", Smithson comes to sketch a new characterization of this dimension by precisely reversing scientific people's consideration of it as "ha-ha". From something impossible and intangible, a mocking "ha-ha", Smithson turns it into a witty "ha-ha": he considers it as a new dimension whose three-dimensionality would be the mirror surface. This is particularly well seen when we think that to access an $n + 1$ dimension, we must create the rotation of an n dimension. The fourth dimension is not visible and can be accessed by a type of intuition or clairvoyance that Smithson calls a "secret language", a sort of hidden door. He proposes to look at the crystalline structures of his fellow artists as some mirror surfaces of a fourth-dimensional "ah-ah".[494] He introduces these works as four

---

to men. It is a dimension as vast as space and as timeless as infinity. It is the middle ground between light and shadow, between science and superstition. And it lies between the pit of man's fears and the summit of his knowledge. This is the dimension of imagination. It is an area which we call the twilight zone." *The Twilight Zone*, 1959.

[493] Gardner expresses it as follows: "Is it possible that someday science will find evidence that a higher space is more than just a mathematical abstraction or the wild speculation of spiritualists and occultists? Is it possible, though at present there are no more than tantalizing hints. The four-dimensional continuum of relativity is one in which 3-space is combined with time and handled mathematically as a non-euclidan geometry of four dimensions. This is not at all the same thing as a 4-space consisting of four spatial coordinates. On the other hand, many cosmological models have been devised in with 3-space." Ibidem, p. 174.

[494] He develops it as follows in *Entropy and the new monuments, Writings*, p. 21: "It is well to remember that the seemingly topsy-turvy world revealed by Lewis Carroll did spring from a well ordered mathematical mind. Martin Gardner in his 'The Annotated Alice', notes that in science-fiction story 'Mimsy were the Borogroves' the author

dimensional by referring to Duchamp's *Three Standard Stoppages* and declares that "These artists face the possibility of other dimensions, with a new kind of sight."[495] What makes this "new kind of sight" a fourth dimension?

Smithson refers again to Duchamp when he discusses on the fourth dimension in an unpublished text entitled *Space the mirror of time*. With an ambiguous reference to Saint Paul, the reference to Duchamp is graspable behind it as he coins the expression "instant conceptualization", recalling Duchamp's definition of the Ready-made as instantaneous: "At this point one is tempted to consider St Paul's warning about 'seeing through a glass darkly… as in a mirror and beneath dark images' the surface eludes like the dark symmetries of an Ad Reinhardt. Where is the surface between spacelessness and timelessness? Perhaps such abstract surfaces come into being through a mind, apart from any unconscious flow or 'stream of consciousness' by way of instant conceptualization. If we accept consciousness as being instant solid state, instead of flowing liquid, then we are capable of infinite combinations." [496]

The reference to Duchamp's *Great Glass* hides behind the reference to Saint Paul. Moreover, by juxtaposing Saint Paul's quote with the reference to Ad Reinhardt, Smithson creates a collision that warns us that the concept of fourth dimension may be unstable and vague: it can oscillate between the vision of God and an indifferent vision. Does Smithson tend to reverse Saint Paul's quote "seeing through a glass, darkly" into an instant indifferent vision? He deliberately leaves an uncertainty on this point, which reveals itself to be essential: it aims to create an interstitial zone where meaning is suspended between two possible understandings. This interstitial zone is to be understood as a new dimension: not one meaning or another, but a suspension of meanings.[497] In that, Smithson pursues clearly Duchamp's *inframince* as *in-between dimension* or *twilight zone*.

Lewis Padgett present the Jabbetwocky as a secret language from the future, and that if rightly understood, it would explain a way of entering the fourth dimension. The highly ordered non-sense of Carroll, suggests that there might be a similar way to treat laughter. Laughter is in a sense of kind of entropic 'verbalization'. How could artists translate this verbal entropy, that is 'ha-ha', into 'solid-models'? Some of the Park Place artists seem to be researching this 'curious' condition. The order and disorder of the fourth dimension could be set between laughter and crystal-structural, as a device for unlimited speculation."

[495] "This synthetic math is reflected in Duchamp's 'measured' pieces of fallen threads, 'Three Standard Stoppages', Judd's sequential structured surfaces, Valledor's 'fourth dimensional' color vectors, Grosvenor's hypervolumes in hyperspace, and di Suvero's demolitions of space-time. These artists face the possibility of other dimensions, with a new kind of sight." Ibidem, p. 23.

[496] In *Space the mirror of time*, in Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834.

[497] Smithson characterizes the dialectic with which he works as "uncertain": "I think the art I am working with is more uncertain. It's not predicated on solutions so much as on problems. And it's dialectical and not abstract." In *Talking with Robert Smithson*, by Kenneth Baker, in *Spiral Jetty: true fictions, false realities*, Dia Art

b- Raw artistic glance and its reflection

By focusing on other texts by Smithson, one grasps how focusing on the sheer act of seeing, he reformulates the issue of the Ready-made. This act is a kind of raw artistic vision, a special kind of vision that appears as being upstream of the creation of three-dimensional or two-dimensional forms. This is an artistic vision freed from the problem of the "subjective" (if it were not, it could not properly be a dimension), and which combines a certain type of imagination and temporality.[498] In *A sedimentation of the mind*, Smithson characterizes this Ready-made of artistic vision by coining the expression "art by casting a glance", which plays on the double meaning of the word *cast*, as both mold and throw.[499] "Art by casting a glance" is an act partly similar to the sculptural gesture, keeping at the same time singular. It can also be compared to the photographic process where a three-dimensional reality is reduced to a two-dimensional surface but on a different level to the extent that three-dimensional space and two-dimensional space would both be reductions of this artistic vision. Like the Ready-made, art by casting a glance consists in an "appointment" that enables the creation of the work of art.[500]

If this artistic vision as fourth dimension casts a work of art, this vision contains what Smithson calls the "conditions of art".[501] In a passage of his text *Pointless vanishing point* (1967), Smithson discusses this problem of a vision to be considered as dimension in itself that would cast (mold) reality. He introduces it as being a reversal of the process of perception as it is scientifically understood today: the eyes emit (cast) rays of light. He compares the cast realized by the act of looking to the process

---

Foundation/University of California Press, 2005, p. 151. — Smithson describes the site of his work *Nonsite-Site Uncertain* as being "uncertain" because it is buried in a remote geological past. In parallel, he points that St-Paul's theological speech would itself be buried in the common approach of the contemporary concept of fourth dimension, but this point can only keep uncertain. —He develops the description of his nonsite *Nonsite-Site Uncertain* as follows: "the coal fragments in the 'boxlike form' point to a land mass that no longer exists on the land surface. The coal was once a swamp of tropical vegetation. Virginia and part of Pennsylvania were once covered with seas. So, the site is prehistoric, gone forever. The rectilinearity of the bins and the interior of the gallery tell us nothing about the mines that the coal came from. Geography has a way of vanishing in my three-dimensional maps, which I call Nonsites." Ibidem, p. 150.

[498] We will get back to the issue of the "subjective" as well as the "self" in Smithson's work in Chapter 1 Part III.

[499] "Not everybody sees the art in the same way, only an artist viewing art knows the ecstasy of dread, and this viewing takes place in time. A great artist can make art by simply casting a glance. A set of glances could be as solid as any thing or place (…)." in *A sedimentation of the mind: earth projects,* in writings, p. 112.

[500] Duchamp characterizes the « inscription » of a *Ready-made* as an appointment: « En projetant pour un moment à venir (tel jour, telle date, telle minute), d' « inscrire un *ready-made* ». Le *ready-made* pourra ensuite être cherché (avec tous délais). L'important alors est donc cet horlogisme, cet instantané, comme discours prononcé à l'occasion de n'importe quoi mais à telle heure. C'est une sorte de rendez-vous. »

[501] Smithson uses this expression when he writes "the conditions of art are not visible while the conditions of the world are" in Draft for *The Establishment* (1968), in Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834.

of mapping that he characterizes as a kind of cast of the real.[502] "Art by casting a glance" would be an act governed by intuition, a tactile act. Like Marcel Duchamp's *inframince*, it implies a "tactile recognition" of the fourth dimension into the third dimension. Art by casting a glance injects this tactility into the visual. Following Duchamp's approach, Smithson finds an alternative to the problem of the expression of the "subjective" that, like Duchamp, he refuses for its superficiality. Tactility has to do with corporeality, a sensuality as a way to deal with anything that is on this side of expression.

Smithson deals in various ways with the problem of the rotation of a three-dimensional space: indeed in *The ambidextrous universe* Gardner explained that a new dimension can be accessed by the rotation of such a space. Duchamp shows it when declaring that "when a clock is seen from the side it no longer tells the time". He uses the image of three-sided mirrors in order to give the idea of the passage from the third to the fourth dimension: "One can imagine this instantaneous crossing of a space by recalling certain effects with 3-sided mirrors in which the images disappear (behind) new images."[503] With his vortex composed of mirror facets Smithson realizes materially Duchamp's image. He presents them as inverted pyramids (Fig 2. 95 and Fig. 2. 96) that can only be grasped /reduced by photography from a certain point of view, which is also the point of rotation of a dimension into the other. Their three-dimensionality should be approached as the surface reflecting the virtual image of another dimension.[504]

---

[502] "The dual globes that constitute our eyes are the generators of our sense of the third dimension. Each eyeball contains a retina that functions like a photographic plate inside a spheroid camera. Rays of light penetrate the transparent cornea, the pupil, the crystalline lens and the vitreous body until they reach the retina. This process was thought to be reversed in Euclid's Alexandria (300 B.C.), in so far as it was supposed that the rays of light issued directly from the eyes along straight lines until they touched the object they were looking at. The philosopher Hipparchus (160-126 B.C.) compared those visual rays with feeling hands touching the objects. This centrifugal theory of vision seems to have returned to modern times in the guise of "kinaesthetic space or what is sometimes called 'surveyor's space'. Natural visual space is not infinite. The surveyor imposes his artificial spaces on the landscape he is surveying, and in effect produces perspective projection along the elevations he is mapping. In a very non-illusionistic sense he is constructing an illusion around himself because he is dealing directly with literal sense perception and turning them into mental conceptions." In *Pointless vanishing point*, in *Writings*, pp. 358-359.

[503] In *The Essential writings of Marcel Duchamp*, op. cit., p. 94.

[504] "My *Three Sided Vortices* of 1966 may be viewed as three dimensional examples of Leon Battista Alberti's idea of perspective as 'an intersection of the pyramid by a vertical plane or what Euclid called a 'cone', except in the case of my vortices the pyramid is inverted and made of mirrored vanishing points that converge into a central perspective. As a result the planes of the vanishing points are reflected into a multiplication of faceted fragments, that radiate from a center point — all this is contained within a steel box, or a cubic camera obscura. The *Four Sided Vortices* extends this triplex conception to quadruplex conception. All these vortices evade photography because the inside of the vortices are partially eclipsed by the outside. Only when the camera enters the vortices in an aerial position can the inside be seen, and the camera is reflected in the mirrors." In *Draft for Pointless*

In several texts, three-dimensional objects are presented as reflections and are characterized as "surfaces", making it clear that Smithson approaches them from a fourth dimensional point of view. In his travelogue *A tour of the monuments of Passaic, New Jersey* published in *Artforum* in December 1967, he narrates a tour in his hometown, stopping in front of ordinary and insignificant construction of this suburb, and adopting a science fiction tone to reverse this common place (another rotation). He refers to the fourth dimension when writing: "Has Passaic replaced Rome as the eternal city? If certain cities of the world were placed end to end in a straight line according to size, starting with Rome, where would Passaic be in that impossible progression? Each city would be a three-dimensional mirror that would reflect the next city into existence."[505]

If each city is a "three-dimensional mirror", this mirror is actually the space-time reflection of a dimension where there is no such relation. Throughout his essay, Smithson makes other allusions to the passage from one dimension to another. In particular when he says "I had been wandering in a moving picture that I couldn't quite picture", he points three-dimensional space, approaching it as the reflected picture of another dimension.[506]

Thus throughout his tour, in front of each "monument", Smithson reveals a progression towards a higher dimension whereas the notion of time movement gets reversed. Throughout the text Smithson realizes a series of inversions and rotations, two movements that allow a change of dimension.[507] The inversion and rotation are clearly shown all along the essay, in particular in two passages, once on the bridge which he calls the "Monument of Dislocated Directions" noting that "such rotations suggested the limited movements of an outmoded world" [508] and once in the parking lot where both the inversion and rotation are evident as he says that he had "slipped

vanishing point, Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834.

[505] In *A tour of the monuments of Passaic, New Jersey*, in *Writings*, p. 73.

[506] Ibidem, p. 72. — Earlier in the text, he compares the bridge over which he walked to a photograph: "noon-day sunshine cinema-ized the site, turning the bridge and the river into an over-exposed picture".

[507] In *The Ambidextrous Universe* Gardner explained that the shift in dimension of an asymmetric object is performed by both its inversion and its rotation.

[508] "From the banks of Passaic I watched the bridge rotate on a central axis in order to allow an inert rectangular shape to pass with its unknown cargo. The Passaic (west) end of the bridge rotated south, with the Rutherford (east) end of the bridge rotated north; such rotations suggested the limited movements of an outmoded world. North and south hung over the static river in a bi-polar manner. One could refer to this bridge as the 'Monument of Dislocated Directions'.", in *Writings*, p. 70.

into a lower stage of futurity"[509], presenting the parking as a rotary point: "that monumental parking lot divided the city in half, turning it into a mirror and a reflection — but the mirror kept changing places with the reflection. One never knew what side of the mirror one was on."[510]

One of the points of this essay is to reveal the oscillations between second, third and fourth dimensions. The second dimension is that of the flat space of photography where time is only an instant, in the third dimension, there is a space-time, and in the fourth dimension, it seems that space and time converge to a point, but a point very different from that of the first dimension as it is the contraction of space and time.[511]

The rotation of dimensions takes its maximum extent with *The Spiral Jetty*, due to the *mise en abyme* of mediums (sculpture, film, text). The passage from one medium to another, from sculpture to film, or vice versa is a passage from the third to the second dimension, the passage from sculpture or film to text can be understood as a passage to the fourth dimension as the temporal dimension for imagination, memory and speculation.[512] In the film, when the helicopter turns slowly above the spiral to perform a 360° rotation while in a monotonous litany, Smithson describes the different degrees of this rotation, there is a sense that he seeks to exhaust the dimension in which we find ourselves to open to "another dimension".[513] Meanwhile, the sun reflections on the water evoke a mirror, making it possible to grasp the passage from the second to the third dimension. This impressive *mise en abyme* suggests that the spiral could also be the eye of the cyclone, the point of convergence of an infinity of dimensions that remain imperceptible to the eye and to the mind: $n + 1 + 1 + 1 + 1 \ldots$ as well as a kind of siphon of our three dimensions.

---

[509] "Next I descended into a set of used car lots. I must say the situation seemed like a change. Was I in a new territory? (…) perhaps I had slipped into a lower stage of futurity. Yes I did, reality was behind me at that point in my suburban odyssey." Ibidem, p. 72.

[510] Ibidem, p. 73.

[511] It recalls the instantaneity dealt with by Marshall McLuhan to characterize the electronic age.

[512] Smithson describes his text *Incidents of Mirror-travels in the Yucatan* as providing "another dimension" to the mirror displacements: "But as far as the activity is concerned, writing it out gives it another dimension, so that the writing like any other material, is not an ideal substance any more than rock or paint are. It is the same kind of concern in a different context." In *Interview with Robert Smithson*, edited by Paul Toner and Robert Smithson, in *Writings*, p. 235.

[513] During the rotation of the helicopter, Smithson describes the degrees of rotation as follows: "North — Mud, salt, crystal, rocks, water

North by East — Mud, salt, crystal, rocks, water

Northwest by North — Mud, salt, crystal, rocks, water

Northeast by east — Mud, salt, crystal, rocks, water

East by North — Mud, salt, crystal, rocks, water

East — Mud, salt, crystal, rocks, water

East by South — Mud, salt, crystal, rocks, water (…)"

He pursues the litany until *North by West - Mud, salt, crystal, rocks, water,* In *The Spiral Jetty* (1972), *Writings*, p. 149.

In the photographs of the Yucatan mirror displacements, the mirror surfaces look disordered or reflect nothing but light. They indicate an elusive dimension. Indeed Smithson described his mirrors displacements as follows: "The mirror displacement cannot be expressed in rational dimensions. The distances between the twelve mirrors are shadowed disconnections, where measure is dropped and incomputable. Such mirror surfaces cannot be understood by reason." [514] Smithson then does not speak of "fourth dimension", he speaks repeatedly of the "surd". What is the surd?

III-THE SURD AND THE SPHERE: FROM DUCHAMP TO PASCAL

1- The surd: infra-dimension

During one of his conversations with Dennis Wheeler (between 1969-1970), Smithson realizes a drawing where he schematizes the various works of which he successively speaks, also writing the ideas and issues he deals with these works (Fig. 2. 97). He later entitles this drawing *A Surd view for an afternoon* (the drawing is dated 1970). This is a drawing on polar coordinates paper, a spiral is drawn just adjacent to the center of the paper's circles. In the center of the spiral, we distinguish the triangle spiral map that he realized while working on the Dallas-Fort Worth air terminal project. Right next to it, Smithson draws an arrow indicating the central point of the polar coordinate sheet and writes "*Air terminal*". All other works dispersed on paper seem to revolve around this point, the rotation being indicated by the spiral next to it. This picture impressively sums up the plastic and theoretical approach that he developed since the project on the air terminal. "*View*" replaces a longer crossed-out word about which under the squiggle we distinguish a "here": would that be "*sphere*", or "*non-sphere*", or "*infra-sphere*"?

Surd is a keyword to Smithson's art, recurrent in his writings and interviews. It is both an irrational number (e.g. a number's square root) and a dull sound, i.e. speechless. It is equivalent to the Greek *Alogon*, the title of Smithson's works in 1968. [515] The *Surd* appears in 1969 in Smithson's work when in *Incident of Mirror-Travel in the*

---

[514] In *Incidents of Mirror-travel in the Yucatan*, in writings, pp. 123-124.
[515] See *Interview with Paul Cummings* quoted above.

Yucatan, he makes the Aztec goddess of waters say: " 'the true fiction eradicates the false reality', said the voiceless voice of Chalchihuitlicue-the surd of the sea."[516]

In his interview with Dennis Wheeler, Smithson explains what he means by surd in his work: "You're into what I would call a *surd area*. A surd area is beyond tautologic… not really beyond, there's no beyond. As a matter of fact it's a region where logic is suspended. I would look this up, too, this particular idea which might be somewhat (generative)… There's no commensurable relation, or it's incommensurable. So you're into a kind of irrational area."[517]

By surd, Smithson thus understands all that is irrational, illogical, immeasurable. This is what cannot be grasped from the standpoint of reason or logic but only by intuition: "Ambiguities are admitted rather than rejected, contradictions are increased rather than decreased—the alogos undermines the logos." he writes in *The Spiral Jetty*.[518] He links this surd with the entropic fall (a descent "from the logic to the surd state"), it is all that is beyond control and measurement.[519]

In *Incidents of Mirror-Travel in the Yucatan*, the mirrors do not reflect any clear picture, but refer to the surd: "The questions the mirrors ask always fall short of the answers. Mirrors thrive on surds, and generate incapacity. Reflections fall onto the mirrors without logic, and in so doing invalidate every rational assertion. Inexpressible limits are on the other side of the incidents, and they will never be grasped."[520]

Although Smithson refers repeatedly to Lewis Carroll in his writings and in particular to the *non-sense*, in the photographs, mirrors do not so much indicate windows toward other dimensions, as it is the case with Lewis Carroll's inverted world, but are seen as surfaces that absorb, reflect, retain all that is immeasurable in a given context. From the *Alogon* series on, Smithson poses the surd as what holds the invisible structure of the visual. All that is commensurate is based on an uncontrollable, incalculable,

---

[516] In *Incidents of Mirror-travel in the Yucatan*, in *Writings*, p. 123. — In her annotation of the interview with Dennis Wheeler, Eva Schmitt said that Smithson's notion of surd comes both from Samuel Beckett in The Unnamable and from science with Tobias Dantzig's essay *Number: the language of science*, NY, Macmillan, 1954. She also cites also Hugh Kenner, *Samuel Beckett: A critical study*, Berkeley, University of California Press, 1968.

[517] *Interview with Dennis Wheeler*, *Writings*, p. 199.

[518] "in the Spiral Jetty the surd takes over and leads one into a world that cannot be expressed by number or rationality. Ambiguities are admitted rather than rejected, contradictions are increased rather than decreased—the alogos undermines the logos." In *The Spiral Jetty*, in *Writings*, p. 147.

[519] "After a point, measurable steps ("scale skal n.it. or L; it. Scala; L scala usually scalae pl., I.a. originally a ladder; a flight of stairs; hence, b. a means of ascent") descends from the logic to the surd state. The rationality of a grid on a map sinks into what it is supposed to define." Ibidem, p. 147.

[520] In *Incidents of Mirror-travel in the Yucatan*, in *Writings*, p. 124.

unconscious element. The surd appears well as an "infra-dimension", not a superior dimension n+1. Like Duchamp's *inframince*, it is an in-between dimension, interstitial, sensitive and immeasurable zone.

We can see how Smithson's surd is a response to the religious incommensurable he was dealing with in 1962, namely for example the mystery of the incarnation, what is inconceivable and has no explanation. Unlike the religious incommensurable which is clearly a higher dimension, the surd as in-between dimension is material, it is in the world and is made perceptible in the very movement of oscillation between two dimensions, in the passage of one dimension to another and vice versa. Thus *non-site* like *non-sight* as Lewis Carroll's *non-sense*, indicate an oscillation between an *n* dimension and an *n-s* dimension. The surd can never be a fixed entity.

2- The surd, the sphere: the dimension of speculation

The "*view*" in the title of the drawing *A surd view for an afternoon*, replaces another strikeout longer term that appears to be composed, from what we still see, of the term "sphere". Of course we could speculate, wondering if Smithson would have written *infra-sphere* or *non-sphere*, which would have strengthened the idea of rotation indicated in the drawing. *Non-sphere* would have characterized the general approach of all the nonsites schematically gathered on the paper: indeed all these works revolve around the same pole, the air terminal project. *Infra-sphere* would have emphasized on the sub-dimension of the surd. We won't try to back up the entropic slope or remake Smithson's drawing. However what is the meaning of the issue of sphere in Smithson's work? The sphere and particularly the idea of "spheres in expansion" is a recurring image in the theories of *n* dimensional geometries. Duchamp speaks of "a sort of tactile expansible sphere" in order to characterize his fourth dimension and the drawings of spheres he sketches are many (Fig. 2. 98 and Fig. 2. 99).[521] However, Smithson not only remains with the expansible spheres that enable to grasp *n* dimensional spaces, he comes to deal with another sphere model, namely the sphere of Pascal. What implies this link? How does he link Pascal's sphere with the in-between-dimension or *inframince*?

---

[521] Marcel Duchamp, in *The Essential writings of Marcel Duchamp*, op. cit., p. 94. — FV in *Duchamp du signe*, Champs Flammarion, 1994, p. 132.

Smithson connects his "dialectics" of site and nonsite to an "infinite sphere whose circumference is everywhere and whose center is nowhere", since from the center that is the nonsite, we are always projected towards the circumference or periphery. In so doing he is reversing Pascal's famous statement "Nature is an infinite sphere whose center is everywhere and whose circumference is nowhere."[522] He explains this reversal of Pascal's phrase in declaring that what matters with it, is the duality on which it is grounded, thus allowing the permutation of terms. [523]

By the time he is setting up the concept of nonsite, Smithson materially realizes the remarkable rotation of a sphere. In 1967, he writes an essay on the work of Michelangelo in which he describes the dome of the Medici Chapel where Lorenzo and Giuliano rest as "an infinite abstract sphere".[524] Along with this article, he makes a drawing of the dome from a photograph he found in Rudolf Schott's book on Michelangelo.[525] This drawing resembles more the bins of *A nonsite (an indoor earthwork)* that he realizes the following year than the dome itself. We can say that with his nonsite, Smithson reverses the dome, he puts it down, realizing the rotation of a sphere (Fig. 2. 100 to Fig. 2. 102). In 1970, he recognizes how his entire plastic practice is "in debt" to Pascal's thought: he saw that the surd is involved in Pascal's dualism, thus opposing the system of logic of Descartes to which he links up certain practices of so-called conceptual art of the time.[526] By permuting the center and the circumference of Pascal's sphere, Smithson makes a rotation that was latent in Pascal's formula. Does this rotation aim at passing into another dimension? By interchanging the terms of Pascal's sentence, Smithson actually realizes the new rotation of a very ancient idea: in his essay *The fearful sphere of Pascal*, Jorge Luis Borges shows that Pascal's formula was the culmination of a whole series of

---

[522] Smithson quotes for the first time Pascal (1623-1662) in epigraph of his text *The Domain of the Great Bear*, co-written with Mel Bochner, published in *Art Voices* in the fall 1966.

[523] "My understanding of the order of the universe is based on the pascalian idea that the universe is a sphere whose circumference is everywhere and whose center is nowhere; or you can reverse that too—in other words, in all the permutations of that, you have the incidence of the point on the edge and then the edge maybe in the center. You know the kinds of permutations of that. Borges traces the etymology of that concept all the way back; it's fundamental to thinking. You have to have this dialectic, otherwise you have the tragic view where everything is sort of fatalistic, but with dialectic you can somehow go back and forth, and there tends to be a rather impersonal view." In *Interview with Dennis Wheeler*, in *Writings*, pp. 210-211.

[524] The essay is entitled *What really spoils Michelangelo's sculpture*, in *Writings*, pp. 346-348. We will get back on this essay in Chapter 4 Part III of this dissertation.

[525] Rudolf Schott, *Michelangelo*, Somogy, 1962. Smithson realizes this drawing probably in view of a publication of his text in *Art Magazine*, as indicated by the paper on which he draws.

[526] "the only thing that interests me is the speculative aspect, trying to arrive at this. (…) it comes out of Pascal. Pascal is like the first dialectician. I'm in debt to the probability aspect of Pascal where he breaks with Descartes. Descartes postulated this mechanistic view which became a kind of copout, but Pascal could never accept that. He was always troubled by these actual scale problems, and then the whole idea of probability springs out of that." In *Interview with Dennis Wheeler*, in *Writings*, p. 207.

permutations of an idea that was expressed since Antiquity. Borges says that in a previous text to the one we know, Pascal wrote: "a fearful sphere, whose center is everywhere and whose circumference is nowhere."[527] This "fearful sphere" was replaced by "nature" in the final version. Borges then concluded: "It may be that universal history is the history of the different intonations given a handful of metaphors."

We can understand that Smithson considers the movement of permutation of the terms of this sphere over time as a dimension in its own: the dimension of speculation, a dimension that follows its entropic course. This is the way he connects the rotation indicated by Pascal about his sphere to the theories of the fourth dimension. The movement of permutation of the terms of this sphere reminds George Kubler's sequences of form. It is the issue of entropy that makes Smithson's surd differ from Marcel Duchamp's *inframince*: it focuses on the movement of rotation and on the degradation/transformation of this movement by emphasizing on the unpredictability in the degradation of the shape. The notions of uncertainty and danger now appear to be essential: they come from Pascal.

"Different intonations" — Smithson would have probably said "various degrees of abstraction." Considering the development of his concept of nonsite, from *A nonsite (an indoor earthwork)* to the *Spiral Jetty*, one can speak of various intonations and nuances in the duality on which each work is built. The development of his concept of nonsite is a kind of scale variation in the understanding of the nuances of a sphere, going from the first dimension, to the second, the third, returning to the second, imagining the fourth — n , n-1, n+1, n, and so on in an uncontrollable way. Each nonsite is a "miniature universe" that aims at giving an awareness of the degrees of distance between dots, plans, volumes and where the surd acts as matrix.

---

[527] Quoted by Jorge Luis Borges, in *The fearful sphere of Pascal, in Labyrinths: selected stories and other writings, 1962, p. 242*.

PART THREE

NON-MEMORIA IN NON-HISTORIA:
MEMORY AND FUTILITY

PART THREE

CHAPTER 1

SELF, ABSTRACTION, NATURE

Words like quality, good, superior etc. imply that God exists, or that man has taken over his role, especially the artist. But who wants God's left-overs?

Robert Smithson, *Notebook*[528]

The modern Isms *are the result of the Failure of the 'humanism' of the Renaissance*

Robert Smithson, *Letter to George Lester*[529]

Mannerist counters with a world in intellectual hysteria, punctuated by frozen inactivity, a world of soundless gestures, where humans do not live.

Peter Hutchinson, *Mannerism in the Abstract*[530]

In 1966, Peter Hutchison, an artist friend of Robert Smithson, publishes *Mannerism in the Abstract*, in the *Arts and Artists* journal. Between 1966 and 1967, Robert Smithson writes two texts kept unpublished in his lifetime in which, like Hutchinson, he links a certain contemporary art to the Mannerism of the sixteenth century: *Abstract Mannerism* and *From Ivan the terrible to Roger Corman or paradoxes of conduct in mannerism as reflected in the cinema* (1967).

Why such a connection? How would a certain art of the 1960s be connected with mannerism?

In *What is baroque?* Erwin Panofsky writes that the mannerism of the sixteenth century expresses "a real problem, inherent in the Renaissance art from the outset."[531]

---

[528] Robert Smithson, Notebook, in Robert Smithson and Nancy Holt Paper, Archives of American Art, Smithsonian Institution, reel 3834.

[529] Robert Smithson, undated letter to George Lester, in Robert Smithson and Nancy Holt Paper, Archives of American Art, Smithsonian Institution, reel 5538.

[530] In *Mannerism in the Abstract*, initially published in *Arts and Artists*, 1966, in *Dissolving Clouds,* Provincetown Art Press, 1994, p. 31.

[531] Erwin Panofsky, in *What is baroque?*, in *Three essays on style*, edited by Irving Laving, with a memoir by William S. Heckscher, MIT Press, 1997, p. 25.

Mannerist art tends to destabilize the good form of the High Renaissance's art and architecture by introducing the well known *forma serpentinata* which comes to gnaw the apparent stability of the High Renaissance's structures, transforming an harmonious aspect into oppressive and unlivable structures. Smithson was very impressed by the Mannerist works he discovered during his stay in Italy in 1959 in view of the preparation of his Roman exhibition that was held at the George Lester gallery in 1961. From his stay in Rome and until 1964, he makes a multitude of drawings inspired by the mannerist and grotesque figures he discovered in Italy (Fig. 3. 1 to Fig. 3. 3). A small drawing in particular sums up his understanding of the tensions inherent to the Renaissance art and that Mannerism tends to reveal: there he figures a perspective space surrounded by satyrs and fantastic creatures. The perspective is based on a kind of pedestal of masks and in the air above flies a monstrous and terrifying serpent. Smithson thus shows that the perspective construct does not have the solid foundations we believe, its foundations are uncertain and can be undermined by these monsters (Fig. 3. 4).

Throughout their respective essays, Hutchinson and Smithson tend to reveal a certain part of the contemporary art of the 1960s in the mirror of Mannerism. They tend to show that this art expresses, let us adapt Panofsky's expression, a real problem inherent in modernist art from the outset.

Smithson does not focus only on the critique of what he calls the "surfaces" of modernism, he digs very far away in order to grasp that the problems that make this modernist art unbearable – "I am a modern artist dying of modernism" he writes in a letter to George Lester in 1961 — had set up back in the Renaissance with the notion of humanism.

While artists and thinkers in the postwar linked their art or their thinking to a "humanism" ("Existentialism is a humanism" says Sartre), reaffirming the human being after the horrors of World War II, the new tragedies (Vietnam, Algeria) show that the concept of humanism is in crisis. In 1966, in *The Order of Things*, Michel Foucault declares that "man is dead". Earlier, in 1963, Alain Robbe-Grillet writes in *Nature Humanism Tragedy* that "things are things and man is only man", then exclaiming "the world is the man. At what price!"

Basing himself on several sources, Smithson pursues the questioning of humanism and finds that the problem that makes modernism oppressive in the 1960s actually lies

in the developments of the notion of self as it was defined in the Renaissance. With the critique of the self, Smithson is armed to not only show the weaknesses of modernism, but to reveal the contradictions of an emerging movement at the time: the ecologist movement. Paralleling his criticism of modernism and of ecologist movements, he shows that both are based on the concept of self such as it developed since the Renaissance. This parallelism enables him to show how both are cancers: the first one for art and the other for society in general. How then can one think an art devoid of the concept of self?

We will first develop what is the criticism of the self such as it manifests in modernism (I), we will then see how Smithson parallels his critique of modernism and ecologist movements (II), at last we will analyze what the self becomes in Smithson's new abstraction (III).

I- ABSTRACT MANNERISM AGAINST MODERNIST ABSTRACTION AS HUMANISM

1- What is *abstract mannerism*?

"Elegance, high technique, acid color, drama, use of cliché: these are, according to Wylie Sypher, some of the elements of Mannerism. In current painting and sculpture, circa the late 60s, we find the same elements reappearing, but this time within the abstract. Is there a new artistic sensibility occurring within the abstract, new because it radically departs from purist abstract painting in a neo-Mannerist way, and neo-Mannerism because it lies within the abstract frame of reference?"[532]

This is how Peter Hutchinson opens his essay *Mannerism in the Abstract*. He shows thereafter that this new mannerism first looks like a plagiarism of modernist art, but that this similarity is actually made to overbalance it. "Behind the charming but 'impure' mask are great disquiet, turmoil, cynicism, and self-doubt." he writes[533]. The works from this abstract mannerism that he describes take the obverse of the seeming solidity of the forms associated with modernism: "Robert Grosvenor's giant structures mock other giantist sculpture in a Mannerist way" producing a feeling of "imbalance

---

[532] Peter Hutchinson, in *Dissolving Clouds*, Provincetown Art Press, 1994, p. 30.
[533] Ibidem.

(that) is unbearable" (Fig. 3. 5 and 3. 6). [534] Smithson pursues this analysis in *Entropy and the New Monuments* published the same year in *Artforum*. Hutchinson also explains that this mannerism arises as the reverse of the "world full of hope" of scientists. This is how he understands Dan Flavin's works using fluorescent tubes, then noticing that "the use of this highly artificial medium, as in the use of aluminium, star spangled iron, plastic, mirrors, and acrylics, adds enormously to the Mannerist artificiality, sense of polish and dramatic impact."(Fig. 3. 7) [535] At the time Smithson worked on "paintings" in which he used various types of plastics (that can be seen as ready-made materials), reversing the austerity of the medium specificity of modernism with artificial glittering kitsch surfaces clearly showing Pop accents. He said "I like plastic because it can be both real and/or unreal, according to your mood. Plastic exists between a solid specific and a glittering generality." (Fig. 3. 8 and Fig. 3. 9) [536] Of course in this instance he plays well with words since the "solid specificity" refers to the modernist principle of medium specificity which he tends to reverse with his ready-made and kitsch materials.

In *Abstract Mannerism* and *From Ivan the Terrible to Roger Corman, or paradoxes of conduct in mannerism as reflected in the cinema*, his two main essays on mannerism, Smithson pursues the same critical line as Hutchinson. At the time he was writing these texts, he developed his critique of modernism through several other texts, further defining the problems he highlighted in 1961 in his correspondence with George Lester. [537] In 1968, in his *Outline for Yale Symposium* entitled *Against abstract categories*, he summarizes in a synthetic list the developments of his earlier texts. Among other things, he states:

"12. There is nothing abstract about any kind of painting—it all represents space.

13. Any line, color, or shape on a surface is representational.

14. Abstraction originates in the mind and not in the eye.

15. Any kind of expressionism involves the pathetic remains of the self. (…)

---

[534] Ibidem, p. 31.

[535] In *Dissolving Clouds*, p. 31.

[536] In *Quick Millions, artist's statement, writings*, op. cit., p. 3. In the same text the writes about the work: "It is a terminal work: sealed, impenetrable, unrevealing—forever hidden. (…) *Quick Million* might be an anti-parody of obsolete science-fiction type architecture, or slippery forms of spaces but I doubt it. One could also say it has a 'non-content'. All kinds of engineering fascinates me, I'm for the automated artist. ". We will get back bellow on the connections between Mannerism and Pop Art.

[537] He develops his critique mainly in *A refutation of historical humanism* and *The pathetic fallacy in esthetics* with which we will deal below.

17. Where ever the eye sees space there is no abstraction. Space is apart from the abstract which is all mental. (…)

19. The notion of the 'art of the recent past', as it relates to Modernism is based on a reduction of the self-centered Renaissance attitude."[538]

This is a hurricane that aims at shattering the assumptions on which the modernist critique is based. What does Smithson understand as "12. There is nothing abstract about any kind of painting—it all represents space. 13. Any line, color, or shape on a surface is representational"?

 When we think back about Barnett Newman's definition of American abstraction as coming from the inside of man (the "abstract intellectual content") as opposed to European abstraction deriving from the mimesis of nature, one may wonder: does Smithson find that Newman's paintings are figurative or is he just pointing European abstract art? We understand the point when reading the other statements of the *Outline*. Yes, Newman's paintings are figurative as they deal with the notion of self, and for Smithson, anything that deals with the self relates to representation. The anthropomorphism he sees in Newman's works appears to him as a leftover of the viewer's identification with the perspective space of Renaissance painting.[539] He develops this point by saying that the problem in some art works related with expressionism is due to "a self identification with space, that is less abstract than the so called representational 'Old Master'."[540] Thus, abstract expressionist paintings keep the hidden idea of Renaissance's "space as human measure". How is this possible? The Renaissance perspective space is a construction in which the viewer projects her/himself, Leon Battista Alberti's window from which history is to be contemplated. Thus the viewer's self identifies with the built space of painting. In Newman's work, this illusionist space wherein the self projects itself, turns into an anthropomorphic space (surface), the human measure is still essential.[541]

---

[538] *Outline for Yale Symposium*, in *Writings*, pp. 360-361.

[539] See our Chapter 1 Part I on Newman's anthropomorphism. — "Newman's art begins with abstraction but results in an anthropomorphizing of space. In other words, instead of representing pictorial events he represents spatial events on an empathic scale, i.e. 'man as the measure of space.' The viewer is expected to empathize with 'the story of each man's agony'. This is "expressed"—valid abstraction is not expressive." writes Smithson in *The pathetic fallacy in esthetics*, 1966-1967, *Writings*, p. 338.

[540] *The pathetic fallacy in esthetics*, *Writings*, p. 338.

[541] See on that point our Chapter 1 Part II: we will get back on the issue of the critique of anthropomorphism in the end of this chapter.

This identification of self with pictorial space is brought to extremes by Clement Greenberg in *Abstract, representation, and so forth* (1954) when he says that "the picture has now become an entity belonging to the same order of space as our bodies."[542] Since "space as the measure of man" remains essential to abstract expressionism works, Smithson remarks that these works are "reductions" from illusionist painting: this is why he refuses to consider them as abstract. Therefore he sees that in order to have a work truly freed from representational issues, the self should be separated from space. Otherwise, it stays with "humanist" issues.

In contrast with *the humanism of abstraction*[543], the abstract mannerist works tend to show, pursuing a famous statement by Ad Reinhardt, that art has nothing to do with life and death.[544] In a certain way, they bring an answer to Alain Robbe-Grillet's question, "what could be, in other words, an inhuman work?"[545]

2- Separation of the self from space

In *A refutation of historical humanism* (1966-1967), Smithson clearly expresses the problems with the identification of the self with space: "Like 'God', the notion of 'life' and 'death' are no longer relevant to art. Art is not biology. The very term Renaissance, meaning 'rebirth', is fallacious. When did art ever die? People die, but art is just art. Art exists in time and is either remembered or forgotten, but never dead or alive. The first person role that the artist is forced into by the humanist is just another way to confuse 'art' and 'life'. This first person role insures the humanist's need for scapegoat, and redemption through art. Art is not redeeming, it contains no self-evident value."[546]

Art requires to leave aside the self, "art is not self" he declares elsewhere. And his "art is not biology" targets the organist conception of art history based on the empathic projection of the viewer to the "pictorial space". The self and the pictorial space prove to be inextricably linked. Hutchinson explains that "space itself, which Patrick Heron regards as the only real concern of painting, is attacked by the

---

[542] In *Abstract, representation, and so forth,* in *Art and Culture*, op. cit., p. 136.
[543] "*On the humanism of abstraction*" is the title of an essay by Robert Motherwell written in 1970.
[544] In *Art-as-art* (1962*)* Reinhardt writes: "the one thing to say about art and life is that art is art and life is life, that art is not life and that life is not art." In *Art as Art, the selected writings of Ad Reinhardt*, op. cit., pp. 54-56.
[545] As writes Peter Hutchison, "Mannerism seeks not to rule, but to change." In Hutchinson, *Mannerism in the abstract*, op. cit., p. 30. First appearing to mimic modernist works, abstract mannerism works actually tend to dismantle them.
[546] In *Writings*, pp. 336-337.

contemporary mannerism. Space becomes shallow as surfaces and structures assert themselves."[547] Smithson constantly questions what we understand as "space", an essential basis of humanism: "I never saw an exciting space. I don't know what a space is" he says.[548] About Judd's work he says that it realizes "the deposition of infinite space"[549] and notes that "space is nothing yet we all have a kind of vague faith in it. Artists talk about space in generalities, the way religious people might talk about god. All such general values are fallacious. Judd's art in some way is about spacelessness, what seems so solid and final in his work is at the same time elusive."[550] Could Judd be a mannerist? In *Specific objects*, Judd notes that among the artists of the new generation Yves Klein's paintings are "unspatial" and Frank Stella's are "nearly unspatial."[551] Before Smithson, he sees how much of the painting coming from abstract expressionism builds on leftovers of illusionism.[552] In his text, he describes a new type of three-dimensional works that can be neither understood as sculpture in the traditional sense nor as painting. However, despite the hopes that could represent his "specific objects", Judd's work pursues in many ways the modernist ideology. It is indicated in the name of these objects and also as noted by Dan Graham, it is due to the artist's "idealism" and "moralism".

Smithson's essay points out the contradictions of the artist theoretitian of minimalism in "inventing Judd", deflecting the closed aspects of Judd's theory and presenting his work as a promise for a new order that would no longer be based on the leftovers of illusionism and the ideology that goes with it.[553] Judd never forgave Smithson for the mannerist reading he made of his work as well as for the allusions to Pop Art that Smithson makes in the beginning of his article. Although he understood how the abstract pictorial surface is in many cases a reduction of the illusionist surface, in the

---

[547] in *Mannerism in the abstract*, op. cit., p. 30.

[548] In *What is a Museum?* (1967), in *Writings*, p. 49.

[549] In *Donald Judd*, *Writings*, p. 6.

[550] In Robert Smithson and Nancy Holt Papers, Archives of American Art, reel 3834.

[551] He declares that "Almost all paintings are spatial in one way or another. Yves Klein's blue paintings are the only ones that are unspatial, and there is little that is nearly unspatial, mainly Stella's work. (…) Abstract painting before 1946 and most subsequent painting kept the representational subordination of the whole to its parts." In *Specific Objects* (1964), in *Art Yearbook* 8, 1965.

[552] "Ibidem.

[553] Dan Graham says that Smithson "invented Judd (in that essay) like Borges invents a fictional character." He pursues "Anyway it's interesting that he had the courage to do that." He also explains that "Minimal people couldn't understand; they could never be mannerist. That's where his disagreement with Judd comes in. he was putting Judd in a mold that may or may not be historically true, but Judd never saw it that way. And Judd would be very moralistic, even though his position, I would say, is right-wing, he's still idealistic and moralistic in how he takes it. Bob wouldn't be. That was the real big disagreement back then with Bob, so Bob was never really accepted. He was thought to be someone who was politically muscling in, you know." In *Interview with Eugenia Tsai*, New York, October 27, 1988, in *Robert Smithson: Zeichnungen aus dem Nachlass*, Münster, Westfälisches Landesmuseum für Kunst und Kulturgeschichte, 1989, p. 12.

end Judd pursues differently the modernist formalism. We can see he does not realize the separation of the self from space in the way Smithson does it.

How can we cut off the identification of the self with space? It seems that Smithson understood it during his stay in Rome when confronting to Mannerist art. Indeed the mannerist figures do not follow the laws of gravity or the proportions and measures of the traditional representational space. How can one still speak of space with such figures? We see that since his stay in Rome, this issue stays with him, as he continues after 1961 to realize a multitude of drawings of grotesque creatures and exuberant characters. In looking at Mannerist art Smithson saw this link between space and self: in order to be so exuberant, to dare such postures, the characters need to leave aside their selves and enter a different order where space does not exist. In order to leave aside the self, one needs to leave "space" or vice versa. These issues appear to find their culmination in a series of drawings between 1963 and 1964 that figure some erotic and psychedelic Hells Angels, sometimes naked on their bikes or with their revolvers, caught between crystalline flakes and liquid forms, revolving around various centers: a machine with erotic accents (Fig. 3. 10) a Venus (Fig. 3. 11), a portrait of Benjamin Franklin (Fig. 3. 12), a kind of altar with a burst (Fig. 3. 13), or a psychedelic shape (Fig. 3. 14). These figures are marginal, never in the center, they *hang around,* asserting an essential feature of mannerism, i.e. to act in the margin. How can one indeed speak of space or of self with such figures? They are in a different order.[554]

Let us see how in parallel with such drawings Smithson builds his critique of the formalism of the modernist criticism.

3- Against the self of the modernist critique

Let us get back to the issue of abstract expressionism. More than with the abstract expressionist artists, Smithson is particularly angry with modernist criticism as it theoretically brought to its limits the approach of these paintings in terms of organism. To consider the work as an organism means, he says, to make the work be the receptacle of the self of the modernist critique: its main aim would be to serve

---

[554] Indeed Smithson understands very well the link between the *Hells Angels* and Mannerism: the Hells Angels are the mannerists of post-World War II. They emerge in California in 1948. Their groups are governed by rules that reject any rationality, claiming violence and illegal activities like the use of drugs.

only for the projection of the self, whereas this should not be the function of the work of art. Criticizing the identification of the self with the pictorial "space", Smithson is particularly virulent against art historians Clement Greenberg and Michael Fried.[555] He shows that they build a reading of art works that he calls "expressive-formalism" and which "has its roots outside of abstraction."[556] With this identification of the self with the pictorial space, they do not deal so much about the works than about themselves.

Smithson thus sees that the problem resides in the "empathetic identification" with art. He considers that the empathic projection of the self into the work of art has "determined almost all esthetics of the last fifty years or so".[557] The respectable critic, as well as the artist must leave the self aside because "art is not self". [558] If the self overshadows the attention to the work for what it is, then we get what Smithson calls a "pathetic fallacy" because "abstract art is not a self-projection, it is indifferent to the self." [559] Here, he also echoes a famous cartoon by Ad Reinhardt in 1946 that summons the viewer to "*clear up what you personally represent*" (Fig. 3. 15). His mannerist drawings say the same thing.

Smithson states that the "expressive formalism" of the modernist critique is actually also an "expressive naturalism". He recurrently describes this critique as "naturalist", reversing the attention from the works themselves to their critique. He then shows that expressionism has its roots in the naturalism of the nineteenth century, which is itself merely the update of Renaissance humanism: "With the rise of naturalism in the arts, the artist began to pose or play the role of hearty individualist, who had no manners or principles, but lots of feelings and natural desires. The 19th century myth of the

---

[555] Indeed, he is clearly much more merciless with the critique than with the abstract expressionist artists. Namely in this passage of *The pathetic fallacy in esthetics*, in *Writings*, p. 337: "All formal criticism of art is based on representational space and its reduction. (…) all of Fried's remarks about "color" and "structure" are empathic with vague references to Wittgensteinian humanism. This brings Fried very close to Newman's pathos. But ultimately Newman is more interesting than Fried's." In his archives, there is a text entitled *The Critoid Menace*, a delirious text in which he imagines an artist castrating a famous critic: "The artist must first castrate a famous art critic and make a position by masking the severed penis into a paste, to which he adds a pinch of turnpintine from the planet Saturn." In Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834.

[556] In *The pathetic fallacy in esthetics*, *Writings*, p. 337.

[557] "What passes for art criticism is based on empathic identification with art. (…) Esthetics have been suffering from an acute case of empathy, ever since empathic esthetics was popularized by Bernard Berenson... The empathic projection of the self into an art-object has determined almost all esthetics of the last fifty years or so." In *the pathetic fallacy in esthetics*, *Writings*, p. 338.

[558] "Any critic who says he is concerned with the self implies that art is in some way united with character or personality, or individuality. Self-criticism never is concerned with art, but only with criticizing the self. Art is not self." In *A refutation of historical humanism*, *Writings*, p. 337.

[559] In *The pathetic fallacy in esthetics*, p. 338.

Renaissance is based on the sensibility of naturalism, and is opposed to manners and conventions. (…) The art object became in the naturalist's mind the direct expression of his own feeling and not the result of a convention or manner, thus began the belief in expressive art." [560]

In contrast with the "humanized nature" of naturalism, mannerism deals with a "denaturalization", emphasizing on the artificiality of art. [561] How did we come to such an importance of the self in art? What is Smithson's analysis? What are the consequences of this self outside the art world in the 1960s?

II- SELF, CAPITALISM, ECOLOGY

1- What is the self in the 1960s?

In his library, Smithson had a book entitled *Loss of the Self in Modern Literature and Art* by Wylie Sypher. In this book, Sypher analyzes the transformation of the concept of self in the literature since the nineteenth century to grasp how this self becomes problematic in the twentieth century. Thus he asks: "Is it possible, while the individual is vanishing behind the functionary throughout the technological world, to have any sort of humanism that does not depend upon the older notions of the self, the independent self that is outdated or at least victimized by the operations of power on its present scale?"[562]

Through the study of various works, Sypher shows how in the Romantic era the humanist self is deeply reformulated into individualism: Romanticism "created the self and destroyed the self", he writes. He then explains that the quest for freedom of the romantic self later turns into a search for authenticity, "in what sense we have an existence that is really 'ours' ", or what he calls an "existential drama". [563] By "loss of

[560] In *From Ivan the terrible to Roger Corman or paradoxes of conduct in Mannerism as reflected in the cinema*, in writings, p. 349. — Thus he sees Fried and Greenberg as pursuing the classic lineage, that mannerism comes to gnaw: "manneristic art is often called pseudo, sick, perverse, false, phony and decadent by the naturalists or truth tellers, yet it seems to me that what the manneristic esthetic does disclose or recover is a sense of primal evil." Ibidem, p. 349.
[561] In *Discussions with Heizer, Oppenheim, Smithson*, in *Writings*, p. 244. Moreover, he considers that Greenberg mixes up "naturalism" and "artificialism": "Many critics who like Greenberg claim 'superior' taste and who have trained themselves to derive pleasure from 'painting' have done so through a Marxist permutation, which confuses naturalism and artificialism." In Robert Smithson and Nancy Holt Papers, archives of American Art, Smithsonian Institution, reel 3834.
[562] Wylie Sypher, *Loss of the Self in Modern Literature and Art*, Random House, 1962, p. 14.
[563] "In spite of the disaster that befell the romantic self, the deeper drama of the 19th century was still to be played: the existential drama. For the romantic problem of freedom led directly into the more searching and private

self" Sypher means that its nature becomes contingent, uncertain — hence the need to affirm it with even greater insistence, on a vacuum background. Indeed the developments of mechanization in all areas of society deeply upset the self. The machine, namely the camera, can produce an object with almost no human intervention.

In his essay, Sypher shows how romanticism and liberalism meet, saying that the individualistic selves of the one and the other are in some way "masked" behind the "interest of all": "the romantic vision of the self is the literary counterpart of the economic man who must take his risk alone in an open market; but both the romantic poets and the liberals talked a great deal about 'the real interests of all'."[564]

Sypher's analysis is important for Smithson, who thus understands how the contemporary self of the artist or of the critic is the result of an uncontrollable and complex mechanism due to the transformation of society. He then sees how the "authenticity" of this self is artificial: "the self is merely an abstraction derived from the concept of man. This has its roots in Renaissance psychology and the death of God. Actually God didn't die. He was simply humanized by the *laissez-faire* economists into a bourgeois order. Oddly enough, the artist is valued in this order because he is abstracted out of nature. He becomes part of the currency. Thus, the 'creative' self becomes an aspect of circulation, an object of exchange, in short, an abstract item. Out of all the chimeras of the new humanism and superstitions of modernism, comes abstract art, the currency of self-realization. Self-realization is nothing but the concept of man reduced to a facile metaphysics of the self, which is then portrayed as an abstract object. (…) Puritan economics puts both the artist and capitalist in a cell of selfhood far from the forces of nature. (…) The artist who treats the 'self' as an object may imagine he has freedom — but that is an illusion. Man abstracted as a mark on a canvas." [565]

Throughout his texts, Smithson remarks several times how the terms "value" and "quality", terms used by the modernist critique are not relevant for artistic issues.

---

problem of authenticity — in what sense we have an existence that is really 'ours'." Ibidem, p. 28. In his copy of the book, Smithson underlined this passage. A little below, p. 29, Sypher explains well the passage from the romantic self to the existential self: "the romantic quest for freedom changed into the existential quest for an authentic self capable of being identified and sustained amid the average. If the romantic rebellion was against God and kings, the existential rebellion was at first against 'the others'. An existential self must be earned against banal majority."
[564] Ibidem, p. 22. Smithson underlined this passage.
[565] In *Economics of the self in nature and art*, in Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834.

These are terms used in the field of economics. In art, they only act as projections of an artificially inflated self. "The word quality has many propaganda purposes", he writes in *Abstract Mannerism*,[566] or " 'value' is just another word for 'humanism'."[567] And he uses the term "paint quality" negatively.[568] Thus it seems that it is through Sypher's analysis that Smithson comes to draw parallels between the modernist critique's self and self of the emerging ecologist movements at the time: "As it turns out, ecology is the latest notion of humanized nature, or what used to be called 'naturalism' " he writes.[569]

2- Culpability of the self and search for redemption: the problem with ecologists

Smithson manifests an extreme virulence against the ecologist movements who among other things prevented him from realizing his *Island of Broken Glass* project near Vancouver in 1970, for which he had planned to recycle for artistic purposes some industrial glass by pouring it on a small island and leaving it degrade naturally.[570] He sees how their claims are the consequences of a Puritanism in identity crisis, distressed by the lack of its self "authenticity". He also sees this environmentalism as the guilty reverse of the most self-centered economic liberalism (Fig. 3. 16 to 3. 19).[571]

In a note for an unpublished text entitled *Ecology and the incest taboo*, he writes:

"The word ecology derives from the greek *oikos* meaning house. One might say it is the guilty side of the word *economic* which also has to do with housekeeping, and places of confinement. The ecology solution is seen as an economic solution."[572]

---

[566] In *Abstract Mannerism*, in *Writings*, p. 339.
[567] In *Writings*, p. 337.
[568] In *From Ivan the terrible to Roger Corman or paradoxes of Conduct in mannerism as reflected in the cinema*, in *Writings*, p. 351.
[569] He pursues: "Confidence in 'human nature' has gone sour, the unproblematic sense of being human in the midst of a naïve anthropomorphic pantheism leaves mother nature wading through polluted rivers. But how human is a flood or a hurricane?" in *Art through the camera eye, Writings*, p. 373.
[570] After about a hundred years the glass would have gradually become sand again. See Chapter 3 Part I in which we analyze the work.
[571] Smithson abundantly deals with the issue of ecologist movements. Several of his texts are still unpublished today. Namely, in his archives, we find a text entitled *Ecology and the incest taboo*, another one entitled *Pathopolis*, that Smithson first entitled "*the great pollution hysteria*". His text *Island of Broken Glass* responding to the censure of his work by the future Greenpeace movement is particularly incisive. There are other remarks in *From Ivan the terrible to Roger Corman or paradoxes of conducts in mannerism as reflected in the cinema*, kept unpublished during his lifetime, and in a less direct way in *Frederick Law Olmsted and the dialectical landscape*, published in 1973 in *Artforum*.
[572] Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834.

The etymological analysis of the terms is insightful. In the critical line of Wylie Sypher, he sees environmentalism as a consequence of the abstraction created by the separation of activities in society and that separation made this nature become abstract. The self thus tries to find its position in relation with this abstraction. He also sees how environmental movements seek a kind of religious salvation: "The crisis of nature abstracted finds its order in the humanist science of ecology – the latest wrinkle in religion gone blind. The metaphysics of capitalism tries to find abstraction in the material world by trying to purify its own wastes. This is very economic but the origins of wealth remain a secret." [573]

The salvation of nature that is however abstract and idealized acts as the redemption of the increasingly specialized categorization of society since the beginning of the industrial era (romanticism), the hope for an ideal oneness — a lure that Smithson understands as the loss of the self.[574]

In his text *Pathopolis* as well as in *Island of Broken Glass*, he compares the environmental movements to the Nazis — which, he says, find their roots in German idealism: "German idealism sent millions to the gas chambers! Weak minds always need scapegoats in order to purify their self proclaimed health and normality; and make their fear look like reason. Hitler claimed that the Jews were polluting German blood. Now, there are some that say that art is polluting the landscape. As an artist, I can only say this is a terrible predicament, I can give no answer or 'final solution' to the present dread. But I do see that something awful is taking place under the banner of what appears to be a 'good cause'. Not only is the environment in danger, but so is the human psyche."[575]

The search for a purity of the race and that for a purity of landscape meet up. Both are the different effects originating in a same source that Smithson understands as the loss of the self. Smithson develops this problem in his text *Island of Broken Glass*, written after his project of the same name was censored. In his incisive text he sees the

---

[573] In *Economics of the self in nature and art*, in Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834. — In his *Interview with Paul Toner* in 1970, he says: "In a technological society, the values have dissipated, and the ecology thing is a way of delivering one from death. Sin is like pollution. (…) the ecology thing represents moral confusion, and a need to continue. It is a media issue, like 'the war on poverty'." in *Writings*, pp. 236-237.

[574] "The phony 'salvation' put forth in so much ecological propaganda, has less to do with saving the land, than losing one's mind. Now every crack-pole can play god. — now that he's dead. The sick smell of dead religion hangs over the ecological mania. Home sickness." In *Island of Broken Glass*, in Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834.

[575] In *Pathopolis,* in Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834.

environmental movement as a "cheap religion", confirming how much it is the guilty side of the capitalist market economy, the search at all costs of a redemption so vague it may be, a blind gesture, a "phony salvation". This text deserves to be quoted here in its entirety:

"The Nazis enlisted scientists to rationalize their 'cause', now some of the 'militant preservationists' are distorting ecology to suit their end. The militant groups are using the 'pollution panic', so they can take political power from the industries and they are using my art as a 'symbol' for their propaganda. All the guilt about slaughter houses, and butchered animals, accidents, and gas poisoning is being put into my island. There are ever some who are suffering from a nationalist castration complex. 'we don't want any American beer bottles dropped on the island.' This is one lie that was quickly reported about my intentions. Cowards are quick to spring for cheap religion when they can't understand the world. And now ecological cowards want to surpass my art because they need a scapegoat. A Hypocrite ran stamps out an art work, then he can eat his bloody steaks, and drive his poisonous car with a clear conscience. The island is not meant to save anything or anybody, but to reveal things as they are. The phony 'salvation' put forth in so much ecological propaganda, has less to do with saving the land, than losing one's mind. Now every crack-pole can play god. — now that he's dead. The sick smell of dead religion hangs over the ecological mania. Home sickness. It is not for us to judge the island, but for the island to judge us." [576]

III- THE SELF IN THE NEW ABSTRACTION: CAN ONE MAKE ART WITHOUT SELF?

1- Against the "Machine"

In contrast with a self as illusion of individuality, a self that expresses in action with abstract expressionism, Smithson insists on the mental aspect of the new abstraction. This abstraction is built as the reverse of the first one: its cold appearance opposes the energy of expressionism, its indifference to the empathy of the other. Smithson and his comrades see this new abstraction as the only way out of what he calls the "Machine" — which appears under his pen quite close to that of *The Matrix*,

---

[576] *Island of Broken Glass*, in Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834.

Wachowski's famous film from 1999 — where economic issues come to format the artist's self, putting up her/his illusion of individuality to heights never seen before, while making her/him produce perhaps more than ever what one expects from her/him, "portable abstractions."

At the time, Andy Warhol dealt powerfully with the insignificance of an "authentic" self by declaring the indifference of this self, revealing the contradictions of the market: "I want to be a machine" but also in parallel, "It's not that I don't like to speak about myself, it's that there really isn't anything to say about me."[577], revealing the vacuum background on which every self is built.

Smithson refers little to Warhol in his writings, however it seems that his influence is decisive in the formulation of his abstract mannerism. Indeed, Warhol's "I want to be a machine" can be understood in the sense of such a mannerism since this statement reveals the loss of the self that haunts society in all its fields, where men fight in order not to become the machines they produce. Warhol's hyperbole acts as a Mannerist exaggeration. Dan Graham confirms about Smithson that "his hero was Andy Warhol" explaining that "People didn't trust the fact that he came out of pop art (…) his politics were… to make an inversion of the prevailing humanist position; it was like playing devil's advocate, right-wing."[578] First appearing to ape the consumer's society, Pop Art tends to show its flaws. Smithson sees it well as a mannerist attitude. Smithson's Mannerist drawings figuring the Hells Angels show a Pop aesthetics with their reference to popular culture.

In his notes for the text *Abstract Mannerism*, we find a short text entitled *Abstract Materialism* in which Smithson seems to refer implicitly to Warhol's "I want to be a machine". He shows that this "abstract materialism" is ultimately an illusion of materialism created by the "Machine": "Abstract materialism — Future artists will no longer be able to consider themselves 'machines', but rather 'products' of the Machine. Each artist will have to transform himself into a 'brand name' so that everything he is identified with will become art. The machine that is the art world will produce him. The artists in turn will produce for the art world an 'abstract materialism' that will reverse all artistic values. All the critics who claim to be

---

[577] Smithson quotes this declaration by Warhol as epigraph of his text *Fiction and Language in Art*, the first version of *A museum of language in the vicinity of art*. About the system, see our Chapter 3 Part II.
[578] He pursues "I wouldn't say Warhol was right-wing, but you could read him in a number of ways—let's say in an amphibious, amoral position; that's what Bob's position actually was." Dan Graham, *Interview with Eugenia Tsai*, in *Robert Smithson: Zeichnungen aus dem Nachlass*, op. cit., pp. 12-14.

upholding the values of the past, tradition, history, etc., do so with the aid of tiresome equivocations about creativity, self-discovery spirit etc."[579]

Throughout other texts, he shows that the Marxism on which Greenberg bases the specificity of the medium has lost its sense, it is somehow embedded in the created abstraction. In a note for his text *The Establishment*, he writes: "The decadence of idealism played itself out in the late 19th century with the symbolist movement. Only now in the 1960s is the decadence of materialism beginning to disclose itself. (…) Materialism and idealism have been so confounded." [580] Thus unlike the "abstract materialism" which is the product of the machine, he responds with an "abstract mannerism".

In a schema entitled *Two attitudes toward the city*, Smithson summarizes very clearly modernist art's approach based on the "Renaissance myth". In contrast, the art he establishes is in all respects its reverse: it is art through the looking glass. In this schema, he calls modernist art "the old city". Right below, the new art is called "the new city". Each point a, b, c, d, e, f of the "old city" finds its inverted mirror image in the "new city". The crystal replaces the organic, the future replaces the past, time replaces space. The schema reads as follows:

I-The old city
a-the city as an organism
b-the metaphors of biology (natural architecture)
c-the nostalgia for the country or nature. (the pastoral—the rustic life among shepherds and dairymaids— the simple, the peaceful, the innocent.
d-Idyllic past.
e-life creates art.
f-the myth of the Renaissance as Humanism. (defined in terms of space)

II-the new city
a-the city as a crystalline structure
b-the metaphors of physical science
c-interest in façades, the abstract, monuments, idea of architecture, highly structured parks, with labyrinths and mazes.
d- the future as artifice (science-fiction).
e-art fabricated life.
f-Grandeur and emptiness. (the sublime) (defined in terms of time) [581]

---

[579] *Abstract Materialism*, in Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834.

[580] Draft for *The Establishment*, in Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834.

[581] *Two attitudes toward the city*, in Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834.

While the old modernist art is rooted and historically built (like the avant-gardes and styles of the past), the new art does without the very concept of history in favor of "time". Indeed, Smithson sees that since the concept of painting as a window from which history is to be contemplated (Alberti), art remained completely grounded on the concept of history, its linearity and all what goes with it. He thus infers that "history is representational". Through the looking glass, we get: "time is abstract."[582] Moreover, the self of the viewer who looked at a work related to the notion of history now becomes a "fiction": "The self is a fiction which many imagine to be real."[583] What is this new abstraction based on time rather than history? What about the self?

2- Anti art history, antiparticle

In a page of his notebook, Smithson writes: "Mannerism is the product of anti art history, it doesn't pretend to be 'authentic', it doesn't play at being genuine culture, or clean good taste. The self expressive personality has a dread of labels, because he is embarrassed on the edge of ultra-consciousness, but mannerism thrives on the proliferation of labels, because he receives an infinity of styles, and each style has a label, just like any manufactured product. Such labels empty the product of all 'mysteries'." [584]

Mannerism as anti art history acts like antiparticles in relation to particles. In *The Ambidextrous Universe*, Martin Gardner writes that "perhaps the antiparticle really is a mirror reflection of a particle."[585] Thus, the history of art as particle and mannerism as antiparticle, but also the old city as particle and the new one as antiparticle.

Smithson rolls back to the sixteenth century mannerism to find artistic antiparticles models. Michelangelo appears to him as the most important model of such antiparticles. Indeed, in his diary he notes that sentence by the master: "one paints with the brain, not with the hand" (Fig. 2. 20).[586] This sentence becomes the *motto* of the abstract mannerism that he defends and develops. In contrast with the illusionist

---

[582] "History is representational, while time is abstract", in *Some void thoughts on Museums*, 1967, *Writings*, p. 41.
[583] In *Outline for Yale Symposium*, *Writings*, p. 361. — The self is the result of a cultural construct, the latin verb *fingere* which gives fiction means both *to forge* and *to feign*. Ego would thus me a montage that creates a belief.
[584] Notebook, in Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834.
[585] Martin Gardner, *The Ambidextrous Universe*, Basic Books, 1964, p. 233. In his copy of the book, Smithson had underlined that passage.
[586] In *Notebook*, in Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834. (*si dipinge col cervello e non con le mani*). He devotes an entire text to Michelangelo, to which we will get back in our Chapter 4 Part III: *What really spoils Michelangelo's sculpture* (1966-1967).

space of Alberti's painting, Mannerism builds an unlivable space in which it is impossible to project oneself.[587]

In a letter to George Lester dated 22 September 1961, Smithson already clearly dealt with this unlivable space when writing about the paintings he was preparing for his Rome exhibition: "The figures in this new series live in a world without nature. Nature cannot touch these figures because the figures are not real." Indeed, Smithson insists at the time about the fact that the figures of his paintings have no equivalent in the "real" world, they are the fruits of imagination. He pursues the Mannerist attitude against the natural. On top of the text of his letter, he draws a woman lying in a cave while on the surface a black circle, a "black hole" appears as the negative of the sun. We are in a world of artifice that is in all respects the negative of the natural world. This drawing perfectly characterizes the mannerism as acting — here literally —in the underground (Fig. 2. 21).[588]

3- Indifferent nature

In contrast with the "humanized" nature of classical art, abstract mannerists consider nature as indifferent. "Abstraction like nature is in no way reassuring. Things-in-themselves are mere illusions" he writes.[589] In contrast with what environmentalists would like to believe, nature is not a thing in itself, but rather an entropic process. It degrades and disintegrates everything, making things get back to a former state. "Perhaps primary matter and anti matter are the same thing" he writes.[590] He develops on the entropic aspect of nature by referring to Claude Lévi-Strauss who " suggested

---

[587] Smithson finds another important model of antiparticle in Parmigianino, which allows him to assert his definition of abstract mannerism as *cosa mentale*: "The "faces" in mannerist pictures are abstractions, because they do not call attention to "paint quality". The face in an expressionist painting is concerned with the "paint", but the face in a mannerist picture is a "conception". The mannerist face is a mask detached from the material fact of the pictorial surface." In *From Ivan the terrible to Roger Corman, or paradoxes of conduct in mannerism as reflected in the cinema*, *Writings*, p. 351. Smithson here realizes another reversal of modernist abstraction: he presents abstraction as the result of a primarily mental work, not the pictorial "quality", not the medium specificity. In Chapter 2 Part II, we saw how with his concept of nonsite, he envisioned the term in the sense of "extraction" of a material from its place of origin. We can see now that he actually realizes torsions of the term in all possible senses, undermining its modernist sense: a good mannerist gesture.

[588] He explains his drawing as follows: "The figure in this sketch is where it is not. The lovely terror beneath beauty. Animals, plants + minerals unlike animals, plants + minerals far from the boring eyes of nature. Transformations within transformations. Colors without color. Etc etc… the way up is the way down! The above figure knows no model. The eye of nature is the black hole posing as the sun, which means in English o=zero." Robert Smithson, Correspondence with George Lester, in *Robert Smithson and Nancy Holt Papers*, Archives of American Art, Smithsonian Institution, reel 5538. We will get back to this drawing in our Chapter 4 Part III about the influence of the grotesque art of the 15-16th centuries, that he discovers during his stay in Rome in 1961.

[589] In *Art through the camera eye*, *Writings*, p. 374.

[590] In Draft for the text *Donald Judd*, in Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834.

we develop a new discipline called 'Entropology'."[591] Indeed, in the conclusion of *Tristes Tropiques*, Claude Lévi-Strauss writes " 'Entropology', not anthropology should be the word for the discipline that devotes itself to the study of the process of disintegration in its most highly evolved forms."[592] He noted how man always builds machines destined to produce entropy by dismantling "millions and millions of structures and reduce their elements to a state in which they can no longer be reintegrated."[593]

Several times throughout his writings, Smithson refers to Wilhelm Worringer's thesis in *Abstraction and Einfühlung* for whom primitive abstraction is the consequence of a fear in front of nature. He remarks that this primitive fear of nature has now "devolved into what David Antin calls 'affluent spirituality'." [594] We thus understand that the question of abstraction as fear of nature is far from being resolved in the passage to representation. In humanizing nature, the primitive fear towards what is outer, uncontrollable, frightening has not gone: it is just masked, nature is looked at with blinders. In contrast to representation, mannerism "figures" (in the sense Daniel Arasse gives to the term), it invents, it replaces the "real" with an artificial building.[595]

4- Re-characterizing anthropomorphism

We now need to admit a clear contradiction between Smithson's statement against Abstract Expressionism's anthropomorphism and the new type of anthropomorphism he develops in some works since the beginning of his interest in crystalline forms. For example in 1965, we can say that the *Enantiomorphic chambers* are anthropomorphic due to the fact that the structures and their layout refer to the left and right eyes (Fig. 2. 22). Anthropomorphism is brought to the extreme with the red color of the water of

---

[591] He develops on the entropic aspect of nature as follows: "The patterns of (abstraction) order things (in) the world into countless frameworks that counter nature's encroachments. We live in frameworks and are surrounded by frames of reference, yet nature dismantles them and returns them to a state where they no longer have integrity. Today's artist is beginning to perceive this process of disintegrating frameworks as a highly developed condition. Claude Lévi-Strauss has suggested we develop a new discipline called 'Entropology'." In *Art through the camera eye*, *Writings*, p. 375.

[592] Claude Lévi-Strauss, in *Tristes Tropiques* (1955), translated by John Russell, Hutchinson & co., 1961, p. 397.

[593] Ibidem.

[594] "Abstraction emerges from a psychological fear of nature, and a distrust of the organic. Cities are abstract complexes of grids and geometries in flight from natural forces. The primitive dread of nature that Wilhelm Worringer put forth as the root of abstraction has devolved into what David Antin calls 'affluent spirituality'." In *Art through the camera eye*, *Writings*, p. 374. He comes back to this issue in *Frederick Law Olmsted and the dialectical landscape en* 1973.

[595] In our Chapter 1 Part I we discussed Daniel Arasse's distinction between figuration and representation. He explained that the Annunciations are figurations since the painter imagines how to give to see something he has never seen while representation is the action to present anew something that was seen.

the Great Salt Lake where Smithson built the *Spiral Jetty*.[596] Among the documents he collected on the theme of the spiral for his project, we find a document stating that our body is a "spiral structure" and also saying that "we are a small universe, a replica of these immense spirals" (Fig. 2. 23).[597] We can thus understand the *Spiral Jetty* as an allegory both of our body and of the Universe, where the salt crystals (growing in spiral) can be seen as the cells of our body.

Anthropomorphism is clearly at stake in Smithson's work, but it is never fixed as a "thing in itself". With the spiral, as well as with the dynamic process with which Anton Ehrenzweig deals in *The hidden order of art*, the self contracts and disperses: the point is to reveal the process of its construction. The anthropomorphic reference always shifts back to what it is not, there is always an oscillation rather than a definite state.

Carl Andre explains very clearly the paradox of his desire, similar to that of Smithson in the 1960s, to make an art freed from anthropomorphism and any human reference: "When I set out on the great adventure of my art I dedicated myself to the creation of work utterly free of human associations. It is exactly the absurd impossibility of that quest which made my work possible. If I had known that it is impossible to make art devoid of human associations because the essence of art is human association, I never would have been able to do what I have done. Human beings, alas, are the one indispensable necessity for art." [598]

Tending to build an art freed from any human reference, Andre's art as well as Smithson's art are grounded on an aporia. The challenge of this blind alley was to shake to notion of self: in place of the static self encouraged by the development of Western society since the Renaissance, it was necessary to substitute an oscillating self, always in the process of construction and deconstruction, a self that would not be frightened anymore by the "loss" of its image. Thus an artist could again sign a letter as did Michelangelo, "Michelangelo Buonarroti, not a painter, sculptor or architect, but what you want me to be." [599]

---

[596] "Chemically speaking our blood is analogous in composition to the primordial seas. Following the spiral steps we return to our origins, back to some pulpy protoplasm, a floating eye adrift in an antediluvian ocean." In *The Spiral Jetty*, *Writings*, p. 148.

[597] In Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution.

[598] Carl Andre, in *Cuts*, The MIT Press, 2005, p. 291.

[599] Michelangelo, in *Carteggio/Correspondance*, présentation et notes d'Adelin Charles Fiorato, Les Belles Lettres, 2011. Quoted by Claire Judde de Larivière *in Le Monde des Livres*, 17 février 2011, on http://www.lemonde.fr/livres/article/2011/02/17/carteggio-correspondance-de-michel-ange_1481310_3260.html

PART THREE

CHAPTER 2

WHAT IS A TOMB? TOWARDS THE ELECTRIC MUMMY

If the plastic arts were put under psychoanalysis, the practice of embalming the dead might turn out to be a fundamental factor in their creation. The process might reveal that at the origin of painting and sculpture there lies a mummy complex. The religion of ancient Egypt, aimed against death, saw survival as depending on the continued existence of the corporeal body. Thus, by providing a defense against the passage of time it satisfied a basic psychological need in man, for death is but the victory of time.

André Bazin, *The ontology of the photographic image*[600]

With sex repression no longer a problem, our present death repressed society will soon rediscover Thanatos. All the half baked "formalisms" that maintain the categories of art will soon vanish.

Robert Smithson, *Notes for the tape recorder*[601]

There seems to be parallels between cybernation and the world of the Pyramid. (…) Perhaps, one could call a computing machine-an "electric mummy".

Robert Smithson, *The artist as site-seer, or a dintorphic essay* [602]

In contrast with the "action" of abstraction advocated by modernist criticism and the artificially inflated self that goes with it, the new abstraction that Smithson defends has something sepulchral. The massive and inert "new monuments" that he describes in *Entropy and the New Monuments* in 1966 approach the ancient funerary monuments. "Eventually there will be a renaissance in funeral art", he says in *What is*

---

[600] André Bazin, *The ontology of the photographic image*, in *What is cinema? Essays selected and translated by Hugh Gray*, Vol. 1, University of California Press, 1967, p. 9.
[601] In Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834.
[602] Robert Smithson, *The artist as site-seer, or a dintorphic essay,* in *Writings, p. 342*.

a Museum? [603] Indeed, Smithson and some of his fellow artists concretely realize this renaissance. The art he defends as reconfiguration of reality — it is based, as we have seen, on Roland Barthes's "simulacrum of the object" as "intellect added to object" — is not far from the Etruscan or Egyptian tomb where the world of the dead is similarly reconfigured so that she/he could live forever in it. Smithson continually draws links between funerary art, photography and computer networks. What do these analogies imply? How can one speak of a revival of funerary art in the art of the 1960s?

A coincidence of dates will give us a clue: in 1964, as Marshall McLuhan publishes *Understanding Media*, Erwin Panofsky publishes *Tomb Sculpture: their changing aspects from ancient Egypt to Bernini*. Smithson read this book and quotes it in *The Artist as site-seer*, *or a dintorphic essay* (1966-1967). Panofsky's study appears fundamental to the art he sets up, helping him to reinforce his criticism of technological positivism.

Why and how does Smithson put ancient tombs in parallel with photography and cybernetics? What are the issues? What are the functions of photography and cybernetics as new graves?

I- ISSUES OF TOMB ART IN THE 1960s

1- Reactivating the first abstract art

In March 1966 Carl Andre shows a series of eight works entitled *Equivalents* at the Tibor de Nagy Gallery in New York. Each consists of 120 white bricks, each arranged differently in the room of the gallery. *Equivalent VIII* measures about the size of a grave. His work *Cuts* that he shows for his solo exhibition at the Dwan Gallery the following year is a kind of negative of the *Equivalents*: the floor of the gallery's room is completely covered with bricks, leaving hollow spaces to dimensions approximately similar to the sizes of the *Equivalents*. Both types of works clearly evoke the grave (Fig. 3. 24 to 3. 27).

In 1976, Carl Andre declared: "I think that sculpture is a very human activity. (…) perhaps the first sculpture was the result of the first human realization that people

---

[603] In *What is a Museum?*, *Writings*, p. 48.

died. The first realization of death: that people leave nothing than a mark. I think sculpture is always related to the question of death. There is always something of the tomb in all sculpture, but not in a sad way." [604]

With this statement, Andre confirms an essential point in Erwin Panofsky's study on funerary sculpture. Panofsky showed how it is the first art, explaining that before the eighteenth century, one cannot understand the history of art without the history of funerary sculpture. Funerary art is the first art where the being is saved in "keeping up appearances" as later said André Bazin.[605] Charles Baudelaire already traced Carl Andre's remark when saying that sculpture "solemnizes everything": it always retains something of the grave.[606]

In 1967, the same year Carl Andre presents *Cuts*, artist Paul Thek presents *The Tomb, death of a hippy* at the Pace Gallery and the Stable Gallery in New York. The work was significant: when entering the gallery, the visitor was faced with a Sumerian type ziggurat in which on the ground was laid the artist's double in resin, dressed in beatnik, his mummy (Fig. 3. 28 to 3. 30).[607] Still in 1967, Claes Oldenburg hired a professional to dig a grave behind the Metropolitan Museum in Central Park that he immediately had resealed: *Placid Civic Monument*, the memory of which remains with photographs (Fig. 3. 31).[608]

In *The ontology of the photographic image*, André Bazin noted the similarity between photography and the cast of the death mask: it is in both cases "a certain automatic process."[609] Like the mask that "imprints" the dead's face with no interference of the human hand, the photograph imprints an object with light in an instant, virtually without the intercession of the human hand on the image.

In the 1960s, the automatic and objective aspect of the cast is particularly at work in Pop Art: the most common objects of the consumer society are cast — in sculpture, photography and especially silkscreen — human beings too. George Segal achieves a

---

[604] Carl Andre, in *Cuts*, MIT Press, 2005, p. 242.
[605] André Bazin, *The ontology of the photographic image*, in *What is cinema? Essays selected and translated by Hugh Gray*, Vol. 1, University of California Press, 1967, p. 9. — « sauver l'être par l'apparence »
[606] See Charles Baudelaire, *La Sculpture*, in *Ecrits sur l'art*: "De même que la poésie ennoblit tout, même la passion, la sculpture, la vraie, solennise tout, même le mouvement; elle donne à tout ce qui est humain quelque chose d'éternel et qui participe de la dureté de la matière employée. La colère devient calme, la tendresse sévère, le rêve ondoyant et brillant de la peinture se transforme en méditation solide et obstinée."
[607] Today the work does not exist anymore. Thek refused to receive it from the post as it had been damaged during transportation.
[608] Oldenburg expressed about his work that the action of digging and then filling back the grave was similar to a breathing movement. Doing this performance he was clearly tending to reconsider our common approach to graves and to death.
[609] André Bazin, *The ontology of the photographic image*, in *What is cinema? Essays selected and translated by Hugh Gray*, Vol. 1, University of California Press, 1967, p. 12. —« un certain automatisme dans la reproduction »

new type of mummy, first in plaster, then in bronze with white patina, freezing characters like a photograph instantly freezes action (Fig. 3. 32 and Fig. 3. 33). Duane Hanson achieves in 1970 the most terrifying mummies of the consumer society: the American housewife and other typical characters in a "hyper-realistic" way (Fig. 3. 34 and Fig. 3. 35). To these three-dimensional mummies echo some two-dimensional type of mummies: Andy Warhol's silkscreens made with the press photographs of stars. The choice of silkscreen particularly resonates with the death mask: the transfer of photography on the canvas deprives the image with its details, keeping only the essential features. We recognize Liz Taylor and Marilyn Monroe, but it is an almost abstract image. Silkscreens of Marilyn and Liz are death masks. Reproduced in series on silkscreen, their photographic portraits have the same status as other images with which Warhol works, many explicitly featuring the theme of death: the electric chair, press clippings of road accidents, suicides or assassinations (Fig. 3. 36 and 3. 37).[610]

Smithson expressly speaks of "abstract mask" when he considers the portrait of Greta Garbo as described by Roland Barthes in *Mythologies*: "Roland Barthes tells us what constitutes the abstract mask, when he says 'As a language, Garbo's (face) singularly was of a conceptual order; Bardot's (face) is of a substantial order. Garbo's face is an idea, Bardot's a happening.' (from *Mythologies*)."[611]

Smithson uses the term "abstract" in a singular sense. "Abstract" here means that the photographic portrait is a construct that aims at saving the being in the "keep up of appearances", with a conceptual picture.[612] The use of the term picture and not "photograph" is important for Smithson: a picture is a construct, he never says that a photograph "represents".[613] The photographic image consists, like tomb sculpture, in a reconfiguration of reality.[614]

---

[610] He puts the theme *en abyme*, by reproducing in series on silkscreen the press clippings of the electric chair, car accidents, suicides, murders. He thus points what remains of these mundane dramas and again he saves these events, "keeping up appearances". Eternity is reached thanks to mass reproduction.

[611] In *From Ivan the terrible to Roger Corman or paradoxes of conduct in mannerism as reflected in the cinema* (1967), *Writings*, p. 351.

[612] This strange use of the word pursues the reversal of the modernist sense he tends to with his nonsite. Indeed, with the nonsite Smithson plays on the ambivalence of the term "abstract" that also means "extract", i.e. removing a material from its source, distancing it. "Abstract" is thus what is distanced from the natural, therefore what is artificial, the work of the intellect, a construct.

[613] In the same text, Smithson calls Parmigianino's mannerist works "pictures", not "paintings": "The 'faces' in mannerist pictures are abstractions, because they do not call attention to 'paint quality'. The face in an expressionist painting is concerned with the 'paint', but the face in a mannerist picture is a 'conception'. The mannerist face is a mask detached from the material fact of the pictorial surface." In *From Ivan the terrible to Roger Corman, or paradoxes of conduct in mannerism as reflected in the cinema*, writings, p. 351. Excerpt quoted in our Chapter 1 Part III.

[614] We will develop below Smithson's more complex view on photography.

2- Between the retrospective and the prospective

In *Tomb Sculpture*, Panofsky distinguishes two functions of funerary art: a retrospective function that he also calls "commemorative", to ensure the memory of the being, and a "prospective" function (or anticipatory) that consists in preparing everything necessary for the dead's eternal life, imagining all its details. The prospective is essential to Egyptian tombs.[615] In the Book of the Dead, the path the deceased has to cross before being allotted its final place in the universe is described precisely, how he will live in eternity too.[616]

In an Etruscan tomb in the necropolis of Cerveteri near Rome, multiple objects, from the tools for harvest to the cushions of the beds are carved in stone. Perennial replicas of the objects with which people lived, everything is now – let us use Richard Serra's terms — "in a time that implies the infinite. Stone seems to have an otherworldly quality to it."[617] (Fig. 3. 38 to Fig. 3. 41)

Reading in parallel Panofsky's *Tomb sculpture* and texts by Smithson, one can see how ancient funerary art meets some essential points of Smithson's thinking.

Ancient tombs oscillate between a commemorative and a prospective aspect. First they act as contractions of the defunct's life, her/his memory, then their prospective aspect consists in an expanding movement of imagination and speculation. It is an oscillation between memory and fiction. In a similar way, Smithson's nonsites oscillate between contraction of materials in the containers and imaginative projection/expansion toward the site.

The prospective aspect in the tombs of the oldest civilizations confirms what Smithson considers to be a fundamental point in human memory: the power of fiction over the "real". "The true fictions eradicate the false reality" he writes.[618] Life is reconfigured into fiction, and it is this fiction that is kept for eternity.

In his interview with Dennis Wheeler, Smithson notes that he chose fiction as opposed to myth. "Smithson: My writings are not mythological because once again

---

[615] Diodorus of Sicily noted that "the Egyptians say their house is only a hostel and that their tomb are their home." (quoted by Panosky in *Tomb Sculpture*).
[616] The defunct was becoming a "celestial body", however its *ka*, its "ungraspable double" as Panofsky calls it, was thought to wander in and around the tomb and it needed a material body and all the necessary treatments.
[617] Richard Serra, in *Interview with Friedrich Teja Bach* (1975), in Richard Serra, *Interviews, etc*. 1970-1980, Written and compiled in collaboration with Clara Weyergraf, The Hudson River Museum, 1980, p. 53. Serra only talks about the stone material, not about Estruscan tombs: "stone seems to bring into play an opposite quality of time. Stone, unlike man-made materials, is a primary material; therefore, it seems to exist not in a bracketed temporality but in a time that implies the infinite. Stone seems to have an otherworldly quality to it."
[618] In *Incidents of mirror-travel in the Yucatan*, in *Writings*, p. 123.

it's like I said, a mythology is a believed fiction. Now I'm sticking to the integrity of the fiction. Since I can't believe in objects and I can't believe in totems, what do I believe in? Fiction. Now let's get to the integrity of fiction. Wheeler: the integrity of the fiction? You mean the integrity of the will to create? Smithson: Of the writing. I'm taking a certain set of perceptions that have been translated into these codes or totemic hieroglyphics and then translating them in terms of my own psychic perceptions so that they don't come as myth but as fiction. And the reason that it seems convincing is because I'm always identifying the fictional use of that, so that the materiality of the writing emerges. And that's why it tends to communicate graphically. It has a kind of palpable sense of that because I'm not trying to make believe I'm a mind. It's not though the eyes of the mind, it's though the eyes of Robert Smithson. I can't really talk about objects either because that's like a philosophical set-up that sort of, you know, has run down over the last two hundred years out of Kant and all the rest of that. And we accept that. Even words like space and time and all that." [619]

Fiction takes the place of myth, it is a reconfiguration of codes or reconfiguration of perceptible data. This point is essential for Smithson. For example, when he writes his text for *Incidents of Mirror-Travel in the Yucatan* he reconfigures the mirrors displacements he did in the Yucatan, translating a "set of perceptions" at work in the mirror displacements that then takes, as he says, a "new dimension" with the article: it becomes fiction and perennial as fiction.

II- PHOTOGRAPHY: ABSTRACT MASK AND REVERSED PYRAMID

1- The photographic abstraction

We have noted in our preceding Chapter that on several occasions through his writings and interviews, Smithson recalls art historian Wilhelm Worringer's statement that abstraction was first the result of the primitive man's fear in front of the physical world.[620] The ancient tombs are such abstractions, consisting in the construction of

[619] In *Interview with Dennis Wheeler*, in *Writings*, p. 213.
[620] Paralleling the birth of modern abstraction, Wilhelm Worringer (1888-1965) focuses on the study of the sources of primitive abstraction. His approach remains famous for having distinguished from empathic theories in the analysis of the art object, namely the projection of the viewer into the art object, its fusion with the object. He tends to propose an objective approach of the art object.

another world that is reassuring as opposed to an uncontrollable and frightening nature. However Smithson remarks how photography raises a primitive fear for some people "who imagine that when you take a photograph of them you're stealing their spirit."[621] On the one hand, man builds an abstraction against the terror of nature; on the other hand, a mechanically reproduced picture of this nature terrifies him as much as nature itself. What makes this picture so terrifying? Is it because it annihilates the abstraction he has built to reassure himself?

Smithson shows how the photograph bears an ambiguous status. Sometimes we control the machine as we control nature and we make an "abstract mask", sometimes we loose control — or it escapes us — and photograph turns out to be what Smithson calls an "entropic bit" – this is what makes it terrifying.

In both cases, whether or not controlled by man, a photograph appears as an abstract nature in the sense that it literally abstracts in an instant a piece of nature, making it shrink into a two-dimensional surface.[622] By reducing a piece of nature to a two-dimensional surface, we get something that has nothing to do anymore with that piece of nature. Smithson repeats several times that "photography makes nature obsolete"[623] or that "the photograph makes nature become an impossible concept" and that "the earth after photography becomes more of a museum."[624] It makes nature become obsolete as it replaces it with a captivating as much as a "siphoning" (Smithson's word) two-dimensional surface. A photograph oscillates between the "abstract mask" (controlled abstraction) and the "entropic bit" (indifferent abstraction). Let us see how Smithson understands this oscillation.

---

[621] In *Talking with Robert Smithson*, Kenneth Baker, in *Spiral Jetty: true fictions, false realities*, Dia Art Foundation/University of California Press, 2005, p. 156.

[622] It is abstraction in the common sense of the term to which Smithson refers, we have seen, with his concept of nonsite.

[623] In *Discussion with Michael Heizer and Dennis Oppenheim*, 1969, in *Writings*, p. 246. He continues: "My thinking in terms of the site and the non-site makes me feel there is no need to refer to nature anymore."

[624] In *Fragments of a conversation*, Interview with William Lipke, in *Writings*, p. 188: "It somehow mitigates the whole concept of Nature in that the earth after photography becomes more of a museum. Geologists always talk of the earth as 'a museum'; of the 'abyss of time' and treat it in terms of artifacts. The recovery of fragments of lost civilizations and the recovery of rocks makes the earth become a kind of artifice." — In this reversal realized by photography, Smithson sees that it is against the abstraction produced by photography that artists such as Cézanne felt the need to go to sites in order to reconsider nature's physical implications that the photograph could not convey: "Cezanne and his contemporaries were forced out of their studio by the photograph. They were in actual competition with photography, so they went to sites; because photography does make Nature an impossible concept." Ibidem.

2- The abstract mask: controlled abstraction

Throughout several texts, Smithson declares that photography creates abstractions. He speaks of Greta Garbo's portrait as an "abstract mask" in the sense that the portrait is a "conception" as are those by Parmigianino in painting (Fig. 3. 42). The photographic imprint is on all points governed by the human hand to make of it an "abstract mask". How is this abstract mask built? Smithson never calls a photograph a "representation". He shows that the laboratory work can be compared to the process of building a mummy: the image is carved from the imprint of the negative which then gets reconfigured to print the desired image. He shows it as follows: "Physical things are transported by heliotypy into a two-dimensional condition. Under red lights in a dark room worlds apart from our own emerge from chemicals and negative. What we believed to be most solid and tangible becomes in the process slides and prints."[625] A photographic abstraction is built the same way an eternal body is built with the mummy. Smithson says that "It appears that abstraction and nature are merging in art, and that the synthesizer is the camera."[626] With photography, nature is reconfigured as an abstract nature.

In *Art through the camera eye* Smithson compares the camera itself to the Egyptian tomb, he tends to show how this mechanism remains mysterious, and how what he calls his "hieroglyphics" – "the symbols of 'cloud' and 'sun' " above the lens are, like those of Egyptian tombs, the agents of a transformation of the world into another dimension. However, whereas hieroglyphics transform the defunct 's earthly life into a celestial eternal and ideal life, what about photography? With photography, "All and all, light is diminished." says Smithson.[627] The camera records a degradation of light, it is a machine that generates entropy. Leaving aside man's control upon the photograph and considering the photographic mechanism itself, a photograph becomes an "entropic bit". How can an artist work with photography as such?

---

[625] In *Art through the camera eye*, 1971, p. 371.

[626] In *Art through the camera eye*, in *Writings*, p. 374.

[627] In *Art through the camera eye, in Writings*, p. 373. — "Surrounding the aperture is a lens opening scale made for determining light conditions—it carries the symbols of "cloud" and "sun". the more I consider them, the more they become hieroglyphics—a secret code. There are times when light readings are governed by the clouds. Natural forces combine with automatic functions to create regions of overcast grayness, an area of inarticulate, dullness, and ambiguity. All and all, light is diminished." — Furthermore, Smithson characterizes a photograph by using religious terms related to sacrifice: "stigmatic vistas" or "a collection of banished bits of space". With photography and film, space-time is sacrified in favour of a two-dimensional abstraction: "Once I had somebody take 400 snapshots of horizons in Seattle, the recording of such stigmatic vistas and unreachable limits resulted in a collection of banished bits of space. Taking such photos puts the human eye in exile and brings on a cosmic punishment."

3- Inverted Pyramid and wild mechanics: indifferent abstraction

When comparing the photograph to the Egyptian tomb, Smithson makes it appear as its reverse, an inverted pyramid of a sort. While the Egyptian tomb opens to the absolute, to the solar, "Photographs are the results of a diminution of solar energy, and the camera is an entropic machine for recording gradual loss of light" he writes.[628] These are "little entropic bits that siphon off moments of experience." [629] Each snapshot punctuates our existence with "a constant reminder that you are moving toward your grave."[630] – an instant *memento mori*. In parallel, Smithson overturns the sacred meaning of the sun to reveal it as a portent of entropy. He describes it as if he were watching a photographic negative: not a sphere of light anymore but a black hole, thus echoing the drawing in his letter to George Lester of September 22nd, 1961.[631] To support this point, he quotes Paul Valéry: "Valéry once wrote, 'Sun, sun!... Brilliant error! You sun, who masks death.'"[632]

Considering a photograph as an entropic bit means to accept our lack of control on the device itself. Smithson says: "A camera is wild in just anybody's hands, therefore one must set limits. But cameras have their life of their own. Cameras care nothing about cults or isms. They are indifferent mechanical eyes, ready to devour anything in sight. They are lenses of the unlimited reproduction."[633] Saying this, Smithson seems to summarize about an aspect of Michael Snow's film *La Région Centrale* realized in 1971 in Canada, for which Snow "abandoned" the movement of the camera to a computer program, then declaring that he looked into the camera only once during the long shooting time. The mechanical motion drives the camera into a series of rotations: in a continuous motion, the lens rotates on itself like a satellite. It scans the landscape, we could also say that it sweeps this landscape: it erases it, not only because the movement is at times so fast that this landscape is no longer perceptible,

---

[628] In *Art through the camera eye*, in *Writings*, p. 372.

[629] *Talking with Robert Smithson*, by Kenneth Baker, in *Spiral Jetty: true fictions, false realities*, Dia Art Foundation/University of California Press, 2005, p. 160. He adds that "that arrested moment is constantly upsetting, it keeps haunting you. You're constantly faced with reminders of things you would rather forget. It's like an albatross around your neck—the camera".

[630] Ibidem, p. 156.

[631] See Fig. 21 Chapter 1 Part III.

[632] He pursues: "The sun just hangs in the sky completely indifferent to our moral problems, banal, blinding, almost sickening. It has obsessed us. We regretedly consider its energy and suppose it to be the giver of life. That's how the spiritual filmmaker see it, unity and all that crap. To me it is a portent of entropy, a kind of groaning circle of hot marmalade. That's why in my film the sun gives off the sound of a hospital respirator. The sun drove Van Gogh mad; it's the curse of art." In *Talking with Robert Smithson*, by Kenneth Baker, in *Spiral Jetty: true fictions, false realities*, Dia Art Foundation/University of California Press, 2005, pp. 159-160.

[633] In *Art through the camera eye, in Writings*, p. 372.

but it substitutes a dimension where there no longer is the notion of gravity. Without any human reference, it is the "mechanical and indifferent" eye *par excellence*. Mentioning *La Région Centrale* in his text, Smithson talks about its "delirious camera" (Fig. 3. 43 to Fig. 3. 46). Abandoned to the program, delirious, it makes us perplex and becomes terrifying: we cannot locate and project ourselves in what it shows us. It creates an indifferent abstraction.

It is in the same sense that we can understand Andy Warhol's statement: "I would like to make an abstract film." that Smithson quotes.[634] Faced with Warhol's films, we feel that objects or subjects melt or disintegrate, among others because of the projection to sixteen frames per second of a film shot at twenty-four frames per second. The film *Empire* makes the Empire State building melt into an indifferent timelessness much more than it represents it (Fig. 3. 47).[635]

With their minimal intervention on the camera, pressing the button and then develop the film without artifice, Snow and Warhol make nature become abstract. Like Smithson, they reconfigure the real by renouncing the "abstract mask" that tends to the ideal: they build inverted pyramids, indifferent and entropic abstractions.

III- CYBERNETICS AND ETERNITY

1- Hieroglyphs and cybernetics: what is immortality?

In *The artist as site-seer or a dintorphic essay*, Smithson compares computer circuits to Egyptian tombs hieroglyphics. Indeed the hieroglyphics of the Book of the Dead describe the complex treatment through which the defunct's soul must go. This treatment was originally designed on the sarcophagus or on papyrus rolls placed on the side of the mummy. In parallel, computer networks make circulate data or information. Soul becomes "information" with computer networks. Smithson compares them as follows: "There seems to be parallels between cybernation and the world of the Pyramid. The logic behind 'thinking machines' with their 'artificial nervous system' had a rigid complexity, that on an esthetic level resembles the tombic

---

[634] Quoted in *Art through the camera eye*, in *Writings*, p. 371.
[635] Warhol's film *Empire* was filmed in the night between July 25th and 26th, 1964, from 8:06 pm to 2:42 am from the offices of the Rockefeller Foundation on the 41th floor of the Time-Life Building. Warhol was helped by Jonas Mekas for filming. 6 hours and 36 minutes were recorded with 24 images per second. The film is projected with 16 images per second. The duration of the projection is of about 8 hours and 5 minutes.

burial structures of ancient Egypt. The hieroglyphics of the Book of the Dead are similar to the circuit symbols of computer memory banks or 'coded channels'. Perhaps, one could call a computing machine an 'electric mummy' — the medium is the mummy. All the content is removed from the 'memory' of an automaton, and transformed into a 'shape' or 'object'. The mummy like the automaton has vacant memories, that remember voids of meaning."[636]

Not only does Smithson drain McLuhan's famous statement — not the fluidity of the message anymore but the mummy — he also shows how "information" that circulates through these channels appear in the end as fictitious as the soul that is supposed to path through the structure of hieroglyphics.[637] Both follow a path, no matter whether it makes sense or not, or if it leads somewhere or not. In *Tomb Sculpture*, Panofsky shows that the first tombs have a "prospective" aspect as the eternal life of the defunct is there imagined, and that the commemorative aspect appears later in history. Imagining the eternal life of the defunct is a fictional projection. Despite its apparently well-defined structure, the computer program does not promise any definite path. Information would remain as elusive as the soul following its path through the hieroglyphic structure.

With hieroglyphs, the memory of the defunct is built and made eternal in the crystalline material of the stone. Smithson similarly sees the "memories" of electronic computers: "Simulated intelligence fabricates 'memories' that are neither dead nor alive; such coded information feigns the possibility of immortality."[638]

Artificial memories, their endless activation provides immortality to information.

Smithson then compares the computer networks to a "silent dirge". He says that

"Both cybernetics and Egyptian ritual seem to be contributing to what Erwin Panofsky calls, '… the collective memory of mankind, in Greek *threnoi*, and the Roman conclamationes.' (see *Tomb Sculpture: Its changing Aspects from Ancient*

---

[636] In *The artist as site-seer or a dintorphic essay,* in *Writings*, p. 342.

[637] It is possible that when Smithson speaks of "electric mummy", he refers to Edgar Poe's novel, *Some words with a mummy* (1845) where a group of scientists inject an electric shock to an Egyptian mummy, which results in its resurrection. The resurrected man then discusses with the scientists, showing them that science was more developed in ancient Egypt than in the present day. Among others, Egyptians could choose to live their lives through periods separated by several centuries, having their body mummified to preserve it between these periods. With the computer data that can be stored for an a priori indefinite period, one has the same problem: information remains as inactive as a mummy and is reactivated by an electrical signal.

[638] In *The artist as site-seer or a dintorphic essay,* in *Writings, p*. 342.

Egypt to Bernini.)" [639] Indeed, Panofsky describes the ancient Egyptian ritual of lamentation as a "codified ritual."[640]

The ritual of lamentations follows specific written rules: it is based on text. Cybernetics is based on code. The text or the code is a reduction of information that was matched so that it acts as "memory". The proper ordering of the text or code enables the reactivation of the contained information, making memory effective. Smithson tries to work in various ways with the principle of the code as a reduction. In our Chapter 2 Part II, we saw how in *Towards the development of an air terminal site* he thinks a kind of coded landscape in particular when he states that: "the process behind the air terminal endlessly plans and replans its concessions, agencies and facilities from masses of information. Here unit terminals are not conceived as trip terminus points. Here no gate position has a unique location. " [641] These concessions may be reorganized from the reduction of the code.[642] As he was working on the terminal project in 1966, Smithson creates a diagram entitled *Three sideviews of concrete on wooden foundation to be plotted on level ground* (Fig. 3. 48). It consists in three lateral planes for foundation projects to be dug in the ground and that would contain and keep separated various materials made visible on the ground surfaces. [643] In each of these plans, each material is represented by a letter and each plan is the result of a coding of materials. Smithson reworks the plans for his *Pulverizations* diagram that appears as the equivalent of a kind of musical score, a reduction of the work that involves the possibility to be physically re-expanded. In this, with this project, Smithson already announces the principle of Sol LeWitt's *Wall Drawings* (1968) for which the written statement acts as a reduced form of the work that will then expand physically, thus acting as an adaptation in the plastic arts of the principle of the musical score (Fig. 3. 49). [644]

---

[639] In *The artist as site-seer or a dintorphic essay,* in *Writings, p.* 342.

[640] Erwin Panofsky, in *Tomb Sculpture*, *La sculpture funéraire de l'Egypte ancienne au Bernin*, Flammarion, 1992, p. 19.

[641] *Towards the development of an air terminal site, Writings,* p. 57.

[642] In particular he focuses on landscape surveying that transforms three-dimensional data into cartographic representations, a first type of reduction: "Land surveying and preliminary building, if isolated into discrete stages, may be viewed as an array of artworks that vanish as they develop." In *Writings*, p. 58.

[643] Among the materials, there is some painted gravel light grade, painted gravel heavy grade, blue coal, bog iron, white silica, tar. With these materials, Smithson rethinks painting issues that he now transposes on the ground.

[644] Still in 1966, Smithson realizes *The Cryosphere* exhibited at *Primary Structures* at the Jewish Museum, a sculpture that he reduces in a crypted formula and that could be reconstructed from the reduction of the code. We will get back to this work in our Chapter 3 Part III. In this chapter, we will also get back to Sol LeWitt's *Wall Drawings* (1968). These are « built » following a written statement and can be re-deployed physically and endlessly, each time different due to its interpretation and the exhibition place.

This consideration of the code is already at stake in 1964 in Smithson's work when he begins to work with crystalline forms. One can see it in a psychedelic drawing of his series of 1964 that we discussed in the previous chapter. In a kind of cartouche that occupies the center of the page he draws a repetitive abstract pattern that resembles a kind of computer memory card fragment. All around the cartouche he draws erotic figures in psychedelic colors. Are these characters the result of an irrational rearrangement of information, information that would remain invisible, coded in the memory card (Fig. 3. 50)? In his 1966 article *Quasi-infinities and the waning of space*, we find again this principle of central cartouche with the text inside and its illustrative images turning around clockwise. The reversal he operates, asserting the presence of the text around which the miniature iconography turns, confirms what he says at the end of *The artist as site-seer*: "The 'visual' has its origin in the enigma of blind order—which is in a word, language. Art that depends only on the retina of the eye, is cut off from this reservoir of paradigm of memory."[645] (Fig. 3. 51)

What is the scope of Smithson's reference to the "collective memory of mankind", a codified memory at work in the Egyptian funerary rituals? Why this link? We see how such a memory is based on a rigorous layout of codes that positions at the opposite of Marshall McLuhan's theory about the "retribalization" of Western society. McLuhan claims at the time that the new communication technologies enable such a retribalization, explaining that with the instant share of information they create, they make the most spontaneous and primitive forms of communication re-emerge: we would now communicate so fast that we would get back to something approaching the tribal orality.[646]

Unlike the characteristic orality of tribal society, when "retribalization" is realized through code in cybernetics, everything is engraved. What does this imply? When the written language is oralized, it is used as an oral form.[647] It is therefore not designed for a perennial memory as in the Egyptian funerary ritual. Referring to Egyptian hieroglyphics, Smithson clearly defends language as code, a contraction that is thought and worked to build a memory. Language as code is for the "collective

---

[645] In *Writings*, p. 343. We will get back and develop the study of this work in our next chapter.

[646] In *Understanding Media*. McLuhan insists on several occasions about the "retribalization" of western society, in particular in this passage: " The non specialist electric technology retribalizes", p. 24. He writes: "not only does the visual, specialist, and fragmented Westerner have now to live in closest daily association with all the ancient oral cultures of the earth, but his own electric technology now begins to translate the visual or eye man back into the tribal and oral pattern with its seamless web of kinship and interdependence." In *Understanding Media*, op. cit., p. 50.

[647] Today the social media pursue this oralization of the written language.

memory of mankind" the equivalent of what the pyramids are to the Pharaohs, our promise of eternity. Smithson's drawing *A heap of language* of 1966 shows it well: this "heap" takes the form of a pyramid lacking its tip, non-finite rather than infinite so to speak. It consists in a succession of language strata whose upper one is precisely the term "language" (Fig. 3. 52). This heap or pyramid might also be the figuration of what contains a computer memory card.

2. Reconfiguration of the code and infinite fiction

In 1947, Jorge Luis Borges writes a novel that somehow announces the problems at work with cybernetics. It is indeed the following year that Norbert Wiener publishes *Cybernetics, or Control and Communication in the Animal and the Machine*. Borges concludes his novel *The Immortal* as follows:

"When the end draws near, there no longer remain any remembered images; only words remain. It is not strange that time should have confused the words that once represented me with those that were symbols of the fate of he who accompanied me for so many centuries. I have been Homer; shortly, I shall be No One, like Ulysses, shortly, I shall be all men; I shall be dead."[648]

Borges intertwines the stories of a Roman tribune with characters of the Iliad and the Odyssey, so that the story "seems unreal" as notes the narrator. In "the end" everything is reduced to words. All multiple facts and events of each story rematch together to form new stories, all is fiction. Borges shows that the "collective memory of mankind" to which Panofsky referred consists above all in the construction of narratives, no matter if they have no meaning. What ultimately matters is this infinite possibility of building stories: there is no ultimate message, but multiple elements continually recombined. Borges's narrator even says: "to be immortal is commonplace; except for man, all creatures are immortal, for they are ignorant of death"[649] With cybernetics, code replaces Borges's words as ultimate reductions. Computer programs are carriers of immortality in the sense that information is reactivated, reconfigured, in continuous transformation. All information follows an entropic course.

---

[648] Jorge Luis Borges, *The Immortal*, in *Labyrinths: selected stories and other writings*, op. cit., pp. 158-159.
[649] Jorge Luis Borges, *The Immortal*, in *Labyrinths: selected stories and other wri*tings, op. cit., p. 153.

In *What is a Museum?* Smithson says: "I think the new tombs will have to avoid any reference to life or death."[650] It reminds of the computer program memories that are "neither dead nor alive".[651] In parallel with the developments of cybernetics, the 1960s are marked by the race to the conquest of space. The absence of gravity of the body in space disrupts spatial and temporal relationships and with it the concept of death. Vladimir Nabokov abruptly questions this issue in his novel *Lance* in 1952: "Deep in the human mind, the concept of dying is synonymous with that of leaving the earth. To escape its gravity means to transcend the grave, and a man upon finding himself on another planet has really no way of providing himself that he is not dead—that the naïve old myth has not come true."[652]

In Nabokov's critical line, Smithson considers the conquest of the moon as "another aspect of escapism (…) trying to break out of the boundaries of the earthly prison again."[653] He added: "the feedback in terms of the cameras and everything is supposed to be a great technical feat, but it comes across like a kind of bad science-fiction movie. Maybe that's what I'm trying to get at, that no matter how great our technical resources are, it doesn't necessary mean a good movie." [654] So rather than bad non-built fictions, a "true" fiction consists in a rearrangement of the basic materials that can be constituents of a "memory", neither alive nor dead, a memory in continual construction, alteration, degradation.[655] Fiction, from *fingere*, to forge and to feign: this is how things are saved in "keeping up appearances" as André Bazin expresses very well. This is how cybernetics can be considered as a new type of funerary art. The stored information is constantly reconfigured, constantly re-imagined.

---

[650] In *What is a Museum?*, in *Writings*, p. 47.

[651] He evokes the idea in *The artist as site-seer*. — In the 1960s, many films deal with the immortality provided by electronic technologies. For example, *Creation of the Humanoids*, a 1964 film that Smithson quotes in *Entropy and the New Monuments*, remarking that this is Andy Warhol's favorite film, the soul of a human being can be transferred to a robot during a certain period after his death. The robot is in every point similar in appearance to the human and cannot itself know that he is not a human. Invulnerable, it should nevertheless be replaced every 150 years, and the soul will be able to pursue its eternal life, being occasionally transferred to a new robot (the term "download" apparently did not yet exist. In the Wachowski's film *Matrix* in 1999, agent Smith "downloads" himself in others' bodies.)

[652] Vladimir Nabokov, *The stories of Vladimir Nabokov*, Vintage Books, 2006.

[653] *Talking with Robert Smithson*, by Kenneth Baker, in *Spiral Jetty: true fictions, false realities*, Dia Art Foundation/University of California Press, 2005, p. 160.

[654] Ibidem.

[655] In our Chapter 4 Part III, we will get back to how Smithson thinks issues of memory for his art.

PART THREE

CHAPTER 3

WHAT IS A MUSEUM IN THE AGE OF CYBERNETICS?

Installation should empty rooms, not fill them.

Robert Smithson in *What is a Museum?*[656]

For some, infinity is the planetarium, a frozen whirlpool at the end of the world, a vast structure of concentric circles, round whose borders one may find an interminable collection of ideas as objects, a repository model universes, here also is the domain of the great bear.

Mel Bochner and Robert Smithson, *The Domain of the Great Bear*[657]

What is a museum? The question obsessively punctuates Smithson's visual and written works. *What is a museum?* It is the title of a work in the form of an article that Smithson writes with Allan Kaprow in 1967. The conversation between the two artists who describe what was previously a museum and speculate on what it might become is completed by a series of photographs giving the idea of a kind of museum in the expanded field. There we find juxtaposed the most utopian projects (a museum in space) and the most mundane industrial and commercial structures, namely a photograph of the final inspection room of a refrigerator firm, or a commercial booth for bathrooms, but also some contemporary works by Carl Andre and Sol LeWitt, some photographs of museums, the underground gallery of Philip Johnson, or the void interior of the Guggenheim Museum. Among the photographs, no view of conventional museums nor of installation of modernist works are to be seen (Fig. 3. 53). In this article, Smithson and Kaprow attempt to redefine the museum in opposition to the traditional concept of museum such as it was established in the late

---

[656] In *What is a museum?, 1967,* Robert Smithson and Allan Kaprow, in *Writings,* p. 43.
[657] In *The Domain of the Great Bear*, in *Art voices*, 1966, in writings, p. 26.

eighteenth century, and which, as noted Everett Ellin, derives from a certain ideology of the Renaissance. [658]

The fact that these two artists collaborate together first appears surprising: in 1961 Smithson violently criticized the idea of Happening set up by Kaprow, stating that art is "swallowed up by action" in a Happening and adding that "sometimes, I wish somebody would free us from freedom." [659] In this dialogue with Kaprow, his criticisms are still present, sneaking but quite ironic when he says, playing on words: "It seems that your position is one that is concerned with what's happening. I'm interested for the most part for what's not happening"[660]

Before their dialogue, Kaprow and Smithson had each already written on the issue of the museum, and we know, institutional critique motivates the works of many artists at the time: these works are built in opposition to institutional exhibition model and look for alternatives to it. Kaprow already declared in 1964 that "the spirit and body of our art is on our TV screens and in our vitamin pills… the modern museums should be turned into swimming pools and night clubs", pursuing in 1967 "or in the best-looking examples, emptied and left as environmental sculptures."[661] Smithson writes in 1967 that "visiting a museum is a matter of going from void to void". [662] Both agree that they should be emptied, but while Kaprow believes that the concept of museum has become irrelevant — *"a fuddy-duddy remnant from another era"* he writes in *Where art thou, sweet muse (I'm hung up at the Whitney)*[663], Smithson keeps very committed with the idea of museum and sees its emptiness as an opportunity to redefine it.

In contrast with the museum as a place of gathering and preservation of objects, but far from an "imaginary museum" Smithson traces throughout his writings the idea of a type of museum that can be termed "cybernetic museum" due to two forms with which it is structured: the spiral and the sphere, two forms essential both to

---

[658] "The museum, a creation of the 19th century, quite naturally adopted the popular mode of the Renaissance for its content. ", Everett Ellin, *museums as media*, ICA bulletin, May 1967, quoted by Robert Smithson in *A museum of language in the vicinity of art*, in *Writings*, p. 84.

[659] "Witness the new vogue of 'Happenings' sweeping NYC's beatnik realm, where art is swallowed up by action. The Happenings are simply 'the black mass' for the retarded, and should be stopped. Sometimes, I wish somebody would free us from freedom." In Letter to George Lester, undated, in Correspondence with George Lester, Robert Smithson and Nancy Holt Papers, Archives of American Art, reel 5538.

[660] In *What is a museum?, 1967,* Robert Smithson and Allan Kaprow, in *Writings*, p. 43.

[661] In *Where art thou, sweet muse (I'm hung up at the Whitney)*, 1967 in *Institutional Critique: an anthology of artist's writings*, edited by Alexander Alberro and Blake Stimson, The MIT Press, 2009, p. 54. In his 1967 article, Kaprow quotes his 1964 article, published in *Art News* in September 1964.

[662] In *Some void thoughts on museums*, 1967, *Writings*, p. 41.

[663] In *Where art thou, sweet muse (I'm hung up at the Whitney)*, 1967 in *Institutional Critique*, op. cit., p. 53.

cybernetics as well as to his thinking and plastic practice. His reflections take source in the idea of peripheral museum at stake since his project for the Dallas-Fort Worth terminal. Rather than attempting to circumvent or escape the museum, Smithson thinks in depth about the reformulation of the idea of museum at the time of cybernetics. Unlike many thinkers at the time, he opposes all types of idealisms in considering technology.

What are the challenges of a museum whose structural principles match those of cybernetics? We will see first how Smithson starts thinking about alternatives to the traditional museum with the idea of a peripheral museum (I), we will then analyze how the principle of the spiral enables him to redefine the museum idea (II) and how through the notion of sphere he considers the issue of network in plastic and critical terms (III).

I- THE PERIPHERAL MUSEUM

1- Back to the *Terminal Museum*

In Smithson's archives, one finds a postcard of the radomes of Fylingdales in the United Kingdom, a Royal Air Force radar station built in 1962. Three crystalline spheres follow one another in the desert landscape (Fig. 3. 54). In this they echo three photographic montages Smithson makes in 1966, *Proposal for a Monument on the Red Sea* where he places a giant cube on a small island, *Proposal for a monument at Antarctica* and *Proposal for a monument at Anartica*. These two latter works are the negatives of one another. They show a "monument", a singular structure in an almost deserted landscape (Fig. 3. 55 to Fig. 3. 57). All these "monuments" in desert landscapes echo the idea of peripheral museum that Smithson discusses with Allan Kaprow in *What is a Museum?* (1967), i.e. a museum built in the middle of "nowhere", in a desert landscape, on the border of a highway, or in a remote commercial center.[664] The idea of peripheral museum is at the heart of his project for

---

[664] In *What is a Museum*, Allan Kaprow and Robert Smithson discuss this issue as follows:
"AK: I wonder if there isn't an alternative on the fringes of life and art, in that marginal or penumbral zone which you've spoken so eloquently of, at the edges of cities, along vast highways with their outcroppings of supermarkets and shopping centers, endless lumberyards, discount houses, whether that isn't the world that's for you at least. I mean can you imagine yourself working in that kind of environment?
RS: (…) I'm all for fabricating as much distance as possible. I seems that I like to think and to look at those suburbs and those fringes, but at the same time, I'm not interested in living there. It's more an aspect of time. It is

the "terminal museum" for the Dallas-Fort Worth airport terminal that we developed in Chapter 2 Part II: as a "terminal museum", it is a structure remote from a city. This museum contains only television monitors that broadcast images in feedback of the works located outside the terminal building. The term "terminal museum" can be understood in a computer sense: a terminal, i.e. a command interface that enables a remote access to a computer network. A terminal is a variety of computing device.[665] If we stick to the computer sense, the terminal museum is therefore a peripheral museum: it provides access to information that is elsewhere. What is the link with the Fylingdales radar-spheres? In a radar, there is a transmitter and a wave receiver, the waves sent by the transmitter are reflected by the target and the return signals are received and analyzed by the receiver. As with the television monitors of the *terminal museum* there is a feedback of information.

As we saw in our Chapter 2 Part II, the televisions of the terminal museum are the points of departure and arrival in the perceptual experience that Smithson seeks to implement for this project: travelers who depart from the airport will first see the two-dimensional images of three-dimensional works on monitors and outside the terminal, they will see the works in three dimensions, then when flying, they will see the two-dimensional plane of the works — and vice versa for the travelers arriving at the airport. The *terminal museum* is thus an essential passage in the experience of shift of dimension sought by Smithson.

A question arises however: what makes the *terminal museum* a museum? This *museum* looses the storage place function characteristic of a traditional museum. Indeed, it stores very few things: the image in feedback on television monitors consists of an almost immediate return of information on itself, it simply acts as a mirror. If this image is not stored behind on a tape, it is a fleeing picture. With the radars, the problem is the same if the captured information is not recorded. Thus if no information is retained, then the *terminal museum* is to be understood as "terminal" in the common sense, the last museum since it stores no more works: the end of the museum.

---

the future — the Martian landscape. By a distance, I mean a consciousness devoid of self-projection." In *What is a Museum?*, in *Writings*, p. 45.

[665] In French "computing device" is called a "périphérique réseau", literally "peripheric network", thus it shows how it implies the issue of periphery.

In our Chapter 2 Part II, we saw how Smithson develops the idea of art working with television as material.[666] Television would enable to develop art that would connect the most peripheral areas of the world. However, he does not speak of "museum". The television exhibition *LAND ART* by Gerry Schum in which he participates in 1969 partially realizes his idea but Smithson remained skeptical about it, saying that it leaves "something to be desired" .[667] Schum's exhibition doesn't intend to be a museum since there is no storage issue at stake, but it presents as a way of exhibiting new types of filmic art work. It is a peripheral exhibition in the etymological sense of the term "periphery" that designates the action to "carry around": with television broadcasting, it carries these works around the globe, making them accessible to anyone who pushes the television button at the right time.[668] Beyond Schum's utopianism with which Smithson disagrees and though he speaks little about the *Fernsehgalerie*, one can grasp that what bothers him in Schum's proposal lies in the insistence on the issue of the proliferation of the works through channels. Indeed, if the works are taken in a flow of information, there is the risk that they cannot have their impact because the terms of their reception (the television monitor and its environment) are not controllable. In short, the "center", the place of reception of the work is lost. This center proves to be essential for Smithson. When he reverses Pascal's famous phrase in "Nature is an infinite sphere whose circumference is everywhere and whose center is nowhere", he reveals all the more powerfully this point: there is a periphery if there is a center. The notion of the center is essential to the idea of nonsite when it sets up a back and forth movement between the center (the nonsite in the museum) and the periphery (the site), avoiding in these movements any way of dealing with the center in terms of unity and Gestalt. Structurally, there can be a peripheral museum only if there are one or several centers where information is fed

---

[666] Smithson writes: "Remote places such as the Pine Barrens of New Jersey and the frozen wastes of the North and south poles could be coordinated by art forms that would use the actual land as a medium. Television could transmit such activity all over the world." in *Towards the development of an air terminal site*, *Writings*, p. 56.

[667] "The *Land Art* films shot by Gerry Schum leave something to be desired; nevertheless they do indicate an attempt to deal with art in the landscape. Television has the power to dilate the "great outdoors" into sordid frontiers full of grayness and electrical static. Vast geographies are contracted into dim borders and incalculable sites. Schum's 'Television gallery' proliferates the results of Long, Flanagan, Oppenheim, Beuys, Dibbets, De Maria, Heizer, and myself over unknown channels which bifurcate into dissolving terrains." In *Art Through the Camera Eye, 1971, in Writings*, p. 374. See our Chapter 2 Part II on Smithson's relation with Gerry Schum's *Fernsehgalerie*.

[668] At the time, the idea of peripheral exhibition is thought differently by art historian and curator Lucy Lippard who organizes four exhibitions outside the major centers of contemporary art to go towards smaller "centers": Vancouver, Seattle, Valencia, CA, Buenos Aires. These exhibitions were called "number shows" as their titles are the number of inhabitants in each city. Smithson participates in the number shows of Seattle and Vancouver. Seth Siegelaub's exhibitions such as *The Xerox Book* in 1968 can also be considered as another kind of peripheral exhibition.

back, or can be stored for variable periods: the contraction (nonsite in the museum) / expansion (extension to the site) movement of his concept of nonsite appears essential for the redefinition of the museum.

2- Monument to the regress of consciousness

Let us get back to the photomontages *Proposal for a monument at Antarctica* and *Proposal for a monument at Anartica*. In both works, Smithson's "monument" is composed of a sequence of cubes in regressive order and forming a kind of staircase. Smithson works this form in a multitude of variations and in various dimensions in many works. Such is the form of the modules of the *Alogon* we saw in Part II (Fig. 3. 58). For *A tour of the Monuments of Passaic*, he cuts a map that also includes this silhouette (Fig. 3. 59). The shape is evoked in the layout of *The Domain of the Great Bear* (Fig. 3. 60), there it is again in an unfinished layout project for his text *What really spoils Michelangelo's sculpture* (1966-1967) (Fig. 3. 61). In the 1966 photomontages *Proposal for a Monument at Antarctica Proposal for a Monument at Anartica*, it takes again another aspect (Fig. 3. 55 and 3. 56).

It seems that Smithson's interest for this form comes from two different sources that he connects together: one is an illustration of Charles Bunn's book *Crystals, Their role in Nature and in Science* (1964) that Smithson has in his library, the other is *The Serial Universe* (1934) by aeronautical engineer John William Dunne. For the "monument" of *Proposal for a Monument at Antarctica* and *Proposal for a Monument at Anartica*, Smithson uses an illustration of Bunn's book: it is a schema realized by the French Abbot René Just Haüy[669], figuring the pattern that characterizes the way in which the molecules are stacked in a dogtooth calcite type of crystal (Fig. 3. 63). This is a stack of molecules in "progression" from the tip of the crystal and extending to the edges. The *Monument* is thus a type of crystal that is built following a shape in progression. What may involve such a form? John William Dunne's reference is a help to grasp it.

Art historian Larisa Dryansky has shown that Smithson borrows this staircase shape to aeronautical engineer John William Dunne (1875-1949).[670] Dunne created this

---

[669] Abbé René Just Haüy (1743-1822) is the inventor of geometric crystallography.
[670] Larisa Dryansky, in her lecture *Time Travelers*, Centre Pompidou, 9 mars 2012, on https://www.centrepompidou.fr/cpv/resource/cXG7Gj/rdLkoAx

form in his book *The Serial Universe* (1934), he uses it to schematize what he means by "infinite regress of consciousness", the central concept of his work (Fig. 3. 64).[671] In the introduction to the book, Dunne shows the drawing of a landscape made by an artist, which is represented three times *en abyme* (Fig. 65). He says that with the second drawing of this *mise en abyme*, the artist had felt the need to represent himself within the landscape in order to give a more complete picture of the universe (what he tended to represent with the landscape painting), and dissatisfied, he realized a third *mise en abyme*, which left him again dissatisfied. Dunne says that the artist was wondering if he could represent all his knowledge on the canvas. However the figured knowledge could never match to the height of the one he actually had in making the painting. How could he overcome this mismatch between the two? Dunne declares that "the process of correcting that inadequacy must follow the serial steps of an infinite regress."[672] Each image of this *mise en abyme* appears as a "regression" in relation to the higher state of consciousness of the beholder. Dunne calls this *mise en abyme* a "serial time." [673] The consciousness of the observer at a precise point is the result of a series of imbricated consciences.

In his book, Dunne explains that our linear experience of time is just an illusion of human consciousness, and that in a higher dimension of reality, past, present and future could be continuous (this is the block universe, although the term is not used). However this time can only be experienced in the form of sequences because our faculties do not allow us to grasp such a time in any other way. In Dunne's sequences of "serial time" consciences, each stage in which consciousness is enhanced implies an awareness of the past consciences, so there is a kind of dialectic. The term "regression" is ambiguous as it can be understood on levels different from the sense given to it by Dunne: Smithson plays with this ambiguity. First, it echoes his interest for entropy, although it is not at all Dunne's point. Then it echoes the regression of a dimension into another that we saw in our Chapter 4 Part II. Note that as Marcel

---

Larisa Dryansky says that today Dunne's theories are considered as occultists. She focuses on their influence on Smithson's speculation on possible time travels, emphasizing especially on the collage *Untitled (The Time Travelers)*, 1964 where the staircase shape is at work (Fig. 62).

[671] In Smithson's library, there is *An experiment with time* (1927), the first work in which Dunne develops the idea of a "serial universe".

[672] John William Dunne, *The Serial Universe*, Faber and Faber, 1934, p. 32. on https://archive.org/stream/serialuniverse032783mbp/serialuniverse032783mbp_djvu.txt

[673] Larisa Dryansky notes that Dunne's serialism "allows to bring a somewhat unusual meaning to the art of the 1960s, usually connected in a much more pragmatic way to the industrial processes adopted by minimalist artists."

Duchamp discusses on the fourth dimension in his *Notes*, he also refers to Dunne's *An experiment with time* about the serial time.

Referring to Dunne's staircase shape for the structure of the monuments of *Proposal for a Monument at Antarctica* and *Proposal for a Monument at Anartica*, it seems that Smithson connects the shape with the regress of dimensions. Let's see how. First, the image of *Proposal for a Monument at Antarctica* is the negative of *Proposal for a monument at Anartica,* which shows a deserted iced landscape. Then, "Anartica" makes us think of "anarchic", in which the preposition *an* shows a negation. Coining this name, Smithson emphasizes that it is the reversed region of *Antarctica*, its negative mirror image. Each landscape is thus the negative of the other but on a different level: one on the image, the other on the name. Both are fictive regions. What do the staircase shape monument could mean? We can see it as a monument to shifts of dimension and thus to shifts of perception.

Rather than a museum with objects, this *museum* would enable to shift from one dimension to another and thus experience various stages of perception. The regression of consciousness here occurs in looking back on these stages of perception. No history, no evolution, no style. Smithson had first called *Proposal for a monument at Antarctica* simply *"SF Landscape"*: this type of museum exists in a fictional and speculative dimension. In looking back on its stages of perception, the regression of consciousness involves a double movement of back and forth as with the nonsite but presented here differently. This is a movement in spiral. Let us see how Smithson concretely works with this shape in order to redefine the concept of the museum.

II- THE SPIRAL MUSEUM

1- Contraction and expansion of the work

Marshall McLuhan notes about the shape of the spiral how "it is a redundant form inevitable to the electric age, in which the concentric pattern is imposed by the instant quality, and overlay in depth, of electric speed."[674] He remarks how the Guggenheim museum with its spiral structure is thus clearly a museum of what he calls the

---

[674] In Marshall McLuhan, *Understanding Media: the Extensions of Man*, chap. 2, *Media Hot and Media Cold*, The MIT Press, 1964-1994, p. 26.

"electric age" (Fig. 3. 66). [675] In Smithson's archives, there are several drawings of "electric" spirals so to say, echoing the declaration of McLuhan: they are angular, figuring bursts evocative of electric shocks impacts (Fig. 3. 67 and Fig. 3. 68). However, throughout his works Smithson mainly builds invisible spirals: he actually considers the essential characteristic of the spiral that consists in a twofold movement of contraction and expansion. This movement governs the nonsites with a contraction of the site in the bins of the nonsite and an expansion when the viewer projects in imagination toward the site; it is also this movement that governs his written works. [676] The principle of contraction and expansion is essential to cybernetics: an object is reduced to code (contraction), and the code enables to "rebuild" the object (expansion). In Smithson's circle at the time, many artists work with this principle in very different ways. However, instead of using the very contracted form of the code, they use a less reduced form: the written language. [677] This principle of contraction/expansion is actually ancient in art: for centuries, musical works have dealt with it although it is not called so. [678] In 1968, Sol LeWitt introduces the principle in drawing with his *Wall Drawings*. The written statement acts as musical score for the realization of the drawing. Like musical works, the perennial and absolute form of the work is the score (statement), and like musical work, its spatial form is temporary and relative, performed by various interpreters during an exhibition. With each new realization, the work extends and by the time the exhibition is over, the drawing gets erased, the work contracts again to be kept as a score (Fig. 3. 69 to 3. 72).

Lawrence Weiner works differently with that principle. He says that he first makes a material work in his studio, of which he keeps only the title, and then two possibilities arise. This title may find a written physical form on the wall of an exhibition or elsewhere (Fig. 3. 73 and Fig. 3. 76), or in some cases anyone may "perform" or

---

[675] Before Frank Lloyd Wright's project for the Guggenheim, Le Corbusier and Pierre Jeanneret proposed in 1931 a project for a spiral museum, the "musée à croissance illimitée", which was thought to be realized next to Geneva. It would have housed the *Mundaneum* (the world museum) conceived by Belgian lawyers Paul Oltet and Henri Lafontaine, an encyclopedic project that foreshadowed cybernetics and internet in that it aimed to bring together all the knowledge of the world with a classification system called "Universal Decimal Classification System." The museum would have been at the center of a "world city", it would have consisted in a single chronological axis going from prehistory to the contemporary age, trying to encompass all of human creation through a multitude of objects, documents, images. The organic and evolutionary approach of Wright and Le Corbusier's works are far from Smithson's concerns, who repeatedly criticizes Frank Lloyd Wright in his writings.
[676] See our Chapter 2 Part II on that point.
[677] We could redefine part of conceptual art by characterizing it according to this principle of contraction/expansion. We will develop here only a few examples.
[678] Indeed the musical score is a kind of contraction of the work that unfolds each time it is performed.

rebuild the material work. For example, the now famous statements: ONE QUARTER EXTERIOR GREEN INDUSTRIAL ENAMEL THROWN ON A BRICK WALL from 1968 and A SQUARE REMOVAL FROM A RUG IN USE from 1969 (Fig. 3. 74 and Fig. 3. 75). In both cases, the physicality of the work is relative and ephemeral, and in both cases we recognize the principle of expansion/contraction at work with Sol LeWitt's *Wall Drawings*: the work can be endlessly realized, providing a new form of eternity. The absolute form of the work is always the statement, the title of the piece.[679] This idea of a visual work oscillating between contraction and expansion makes Smithson declare that "Installation should empty rooms, not fill them."[680] They should not be cumbersome and a museum could be reduced to code or language.[681]

2- Void and hyperbole

In his writings, Smithson works on various degrees with the archaic form of the spiral, building hyperboles in intertwining texts and images. With this archaic form, he maltreats all historical references, especially the imposing slice of Western art as it developed since the Renaissance: he compresses it into a sandwich between the pre- and the post-historic.[682] Bringing down the concept of history enables to develop a

---

[679] Lawrence Weiner's approach is subtle in that the material work does not need to be realized, confirming that the absolute work is the statement. This is what he states in his famous "declaration of intent" of 1968: "1. The artist may construct the piece. 2. The piece may be fabricated. 3. The piece need not be built." Moreover, his statements indicate gestures that actually do not exist, they are not actions as remarked Carl Andre: "Larry Weiner doesn't say *'take a ball to Niagara Falls and throw the ball into Niagara Falls*.' Larry Weiner does a thing that does not even exist - *'a ball thrown into Niagara Falls*.' Now that is suddenness that we don't know in the western language, except in a very few poets. (…) Actually he says he has no desire to see a ball thrown in Niagara Falls. He says he doesn't care whether it is done by him or by somebody else, or not done at all." In March 8, WBAI-FM, New York. Symposium moderated by Lucy Lippard, in *Six Years, the dematerialization of the art object from 1966 to 1972*, University of California Press, 1973-2001, p. 158.
[680] In *What is a museum?*, in *Writings*, p. 43.
[681] This principle of contraction/expansion has considerably developed today with digital works for which the absolute form of the work now consists in a digital file (code) that is then deployed as a relative and ephemeral form in a physical place: a photographic imprint on wallpaper or a video projection that considers the specificities of the place of destination. From this point of view, contemporary museums working with digital works get relatively emptied as the works contract and expand, following the infinite movements of the spiral.
[682] We have seen that the encounter of prehistory and post-history is recurrent through his writings, and in this Smithson might have been influenced by Marshall McLuhan, who saw the "electric age" as the period where the linear relationship to time would collapse, thus enabling archaic cultural and organizational forms to reemerge, namely the tribe. McLuhan writes that: "Electric speed mingles the cultures of prehistory with the dregs of industrial marketeers, the nonliterate with the semiliterate and the postliterate." In *Understanding Media*, op.cit., p. 16. — Smithson deals for the first time with the encounter of the pre- and post-historic in *Entropy and the new monuments* in 1966 when writing: 'this sense of extreme past and future has its partial origin in the museum of natural history; there the 'cave man' and the 'space man' may be seen under one roof'. The confrontation is again at work in *Ultramoderne* in 1967, in *A sedimentation of the mind* in 1968, he writes that "the 'present' (…) must instead explore the pre- and post-historic mind; it must go into the places where remote futures meet remote pasts." He develops again the point in *A museum of language in the vicinity of art*, 1968, until his last text published in 1973 in *Artforum*, *Frederick Law and the dialectical landscape*. — In *A museum of language in the vicinity of art*, he writes: "I had a slight awareness of the sameness of pre- and post-history, when I wrote in

new approach of the notion of museum. Smithson first eliminates the "spatial problem", substituting to it an indifferent and infinite time. This is essential as with the illusionist painting (the window opened on history), it is precisely in a pictorial space that "history" is built, and this history remains at work in the concept of "pictorial space" of modernist abstraction. "The first obstacle shall be a labyrinth, through which the mind will pass in an instant, thus eliminating the spatial problem" he writes in the beginning of *Quasi-infinities and the waning of space* (Fig. 3. 77 and Fig. 3. 78).[683] With this work, the text is placed in a cartouche in the center of each page, around which the illustrations are arranged clock wise in spiral. The shape of the labyrinth (a type of spiral, the first illustration) tends to bring back to an archaic order freed from any historical concept. In the labyrinth, history is lost. And in Smithson's paper maze (the article), the historical museum's splendor is upset. Indeed, the article intertwines so many references that, as we have seen in Chapter 2 Part II, Pamela Lee characterized it in terms of "communicative jamming" due to its excess of information with no coherent message.[684] Trying to understand the text only for what it can mean is a wasted effort. Smithson seems to simulate a wandering through computer channels in which numerous data circulate. With this text as with *What is a museum?* or *Ultramodern,* he empties the traditional concept of museum anchored in a specific place to reformulate it in the form of a block of text with images to be reproduced in series. In *What is a museum?* he indeed imagines empty museums, pursuing McLuhan's idea that "the message is the medium". It is only the empty shell that counts, not what it contains: "A museum devoted to different kinds of emptiness could be developed. The emptiness could be defined by the actual installation of art." (Fig. 3. 79)[685]

'entropy and the new monuments', 'this sense of extreme past and future has its partial origin in the museum of natural history; there the 'cave man' and the 'space man' may be seen under one roof'. It didn't occur to me then, that the meanings of the museum of natural history avoided any reference to the Renaissance, yet it does show 'art' from the Aztec and American Indian periods-are those periods any more 'natural' than the Renaissance? I think not—because there is nothing natural about the museum of natural history. 'Nature' is simply another 18th –and 19th century fiction." In *A museum of language in the vicinity of art*, in *Writings*, p. 85.

[683] In *Quasi-infinities and the waning of space*, published in *Arts magazine* in November 1966, in *Writings*, p. 34.

[684] She develop the point as follows: "As in the published form of the essay, Smithson's first paragraph makes sweeping reference to a broad range of cultural phenomena, mostly architectural or architectonic, sometimes fabulous (the Tower of Babel), sometimes not. He then attends to "how quickly" the mind passes over this information, as if absorbing these various historical artifacts in rapid-fire succession." In Pamela Lee, *Ultramoderne: or, how George Kubler stole the time in the sixties art*, in *Chronophobia*, op. cit. p. 251. —Pamela Lee noted that Smithson had worked on the text for about six months. Indeed, in his archives, there is a multitude of versions of the text, one of the first versions is entitled *Art and Time*.

[685] In *What is a Museum*, *Writings*, p. 43. Kaprow suggests to keep only a few empty museums like the Guggenheim, which would then be considered as art works in themselves and would be visited as mausoleums: "I am attracted to the idea of clearing out the museums and letting better designed ones like the Guggenheim exist as

The dizzying number of references at stake with his articles shows that each consists in the setting up of a new type of museum, turning a mass of objects into a mass of words and reproductions. The peculiarity of this new museum is that the common meaning of each word gets siphoned and replaced by a multiplicity of meanings. Thus this museum appears as a crystal. [686] Smithson reveals an infinite expansion/contraction of the object in relation to the word on which it is grounded. As the word each time takes a different meaning, the reconstructed object will every time be new. In suggesting to empty the traditional structure of the museum, Smithson displaces the concept of museum as a gathering of physical objects to a "museum of language".

3- The museum of language: between the spiral and the sphere

Smithson defends a museum of language by emphasizing the fact that language is at the basis of objects. It constitutes their foundations. Words are thus absolute material entities from which relative meanings and objects expand and contract.[687] Moreover, he always emphasizes on the crystalline aspect of language: "What I am saying is that words have this kind of multifaceted range to them, so that there is no fixity about a word, it seems to me it's malleable; it's like clay. You can keep working all different kinds of transformations." [688] The meanings and objects are made and unmade according to the contraction and expansion movements of each word. These words are

---

sculptures, as works, as such, almost closed to people. It would be positive commitment to their function as mausolea." Ibidem, p. 45. — In 1967 as well, Smithson realizes a drawing of a museum whose entrance looks like that of an archaic tomb, on top of which is written "*The museum of the void*". On the roof of the structure, we find a multitude of ziggurats, about which Smithson deals in his article *Ultramoderne* in 1967. The drawing *The museum of the void* illustrates his article *Some void thoughts on Museums* published the same year in the February issue of *Arts Magazine*.

[686] In *Fiction and language in art*, the first version of *A museum of language in the vicinity of art*, he writes: "The meaning of single words, phrases, sentences may be emptied, reversed, damaged, changed by the use of an odd syntax. Meaning upsets meaning. The whole apparatus of grammar is taken not in terms of 'truth', correct statements, or true principles, but rather as syntactical arrangements or moods, that could be right or wrong, but are probably wrong. Any understanding has to lead to misunderstanding. Language is like any other material." In *Fiction and language in art*, in Archives of American Art, Smithsonian Institution, reel 3834.

[687] "The only actual thing about writing on art is the language" he writes In *Fiction and language in art*, ibidem.

[688] Robert Smithson, *Interview with two students*, 1973, in Robert Smithson and Nancy Holt Papers, Archives of American Art, Washington D.C. — In this interview, Smithson echoes a passage from T.S. Eliot's *Four Quartets*: "Words strain/Crack and sometimes break, under the burden/Under the tension, slip, slide, perish./Decay with imprecision, will not stay in place/Will not stay still." Smithson was certainly influenced by Eliot's metaphor of natural elements for his text *A sedimentation of the mind: Earth projects* (1968) were the earth's natural activity and its catastrophes are linked with mental activity.

approached as reductions in the manner of computer code, allowing endless reconfigurations of information.[689]

In *The Domain of the Great Bear*, Mel Bochner and Robert Smithson characterize the planetarium as "an interminable collection of ideas as objects", and "a repository model universe".[690] As the universe follows a spiral shape, one could say "a repository of model spirals" and imagine the dome of the planetarium house a collection of ideas/objects expanding and contracting from their word-basis. We would thus have spirals contained in a sphere, two forms involving the idea of rotation.

Smithson combines the shape of the sphere to that of the spiral in his preparatory drawing for his *Gyrostasis* sculpture in 1968. The work is built of triangles of decreasing size forming a spiral and it is traced in a structure built of imbricated hexagons forming a crystalline sphere (Fig. 3. 80 and Fig. 3. 81).

In *A museum of language in the vicinity of art*[691], he characterizes the museum of language as a crystalline sphere all in mirrors reflecting each word in its facets, creating simultaneously a multiplicity of meanings.[692] Like the spiral, the multiple reflections of this sphere bring down any historical sense. He calls such a museum a "Babel of mirrors", relating it to Pascal's idea that "Nature is an infinite sphere whose center is everywhere and whose circumference is nowhere". Here, the reference to nature disappears and the sentence is transformed into "language becomes an infinite museum whose center is everywhere and whose limits are nowhere".[693] With this permutation of words, Smithson shows that Pascal's sphere is itself caught in the

---

[689] The museum of language works differently the principle of sequences of forms developed by George Kubler in *The Shape of Time*. Kubler explained that a sequence of forms is built around a main problem to which each piece of the sequence responds in a unique way depending on the historical context in which it emerges. A sequence of forms is a kind of invisible museum. While a sequence of forms builds around a "problem", an idea, Smithson's museum of language focuses primarily on words as the points of departure and arrival to infinite expansions and contractions of objects and meanings. See Chapter 4 Part I on the relationship between cybernetics and Kubler's theory of prime objects and replications.

[690] In *The Domain of the Great Bear*, in *Writings*, p. 26.

[691] Published in *Art International* in March 1968.

[692] Smithson illustrates the article, *The Domain of the Great Bear*, co-written with Mel Bochner, with photographs of the construction of a dome: that of the Hayden Planetarium at the American Museum of Natural History in New York.

[693] Smithson develops the relation to Pascal's sphere as follows: "the language of the artists and critics referred to in this article becomes paradigmatic reflections in a looking glass babel that is fabricated according to Pascal's remark, 'Nature is an infinite sphere, whose center is everywhere and whose circumference is nowhere.' The entire article may be viewed as a variation on that much misused remark; or as a monstrous 'museum' constructed out of multifaceted surfaces that refer, not to one subject but to many subjects within a single building of words—a brick=a word, a sentence=a room, a paragraph=a floor of rooms, etc." in *A museum of language in the vicinity of art*, in *Writings*, p. 78.

spiral of the museum of language: it becomes one expansion/contraction of an idea that can be decomposed and recomposed with an endless permutation of words.[694]

The spiral of the drawing for *Gyrostasis* is built into the very structure of the triangles of the surface of this sphere. It creates a movement of expansion/contraction of the sphere. One can imagine that Smithson's museum actually consists in a *mise en abyme* of spheres contracting and expanding like origami: each would constitute a museum containing another museum, each contained in another sphere, a larger museum, all in continuous movement. Smithson precisely evokes the contraction/expansion of a sphere as he shows Buckminster Fuller's *World Energy Map* in origami, composed of squares and triangles whose statistics (points on the map) he comments as follows: "The use Fuller makes of the 'dot' is in a sense a concentration or dilation of an infinite expanse of spheres of energy. The 'dot' has its rim and middle, and could be related to Reinhardt's mandala, Judd's 'device' of the specific and general, or Pascal's universe of center and circumference."[695] (Fig. 2. 82)

By linking the shape of the sphere to that of the spiral, Smithson prevents any association of the sphere with the notions of unity and Gestalt with which it is most commonly associated. An origami sphere unfolds in three dimensions then contracts again in a two-dimensional plane, it oscillates between these two dimensions. Such an origami sphere gives a picture of what constitutes Smithson's language museum.

In the movement of expansion and contraction of the origami-sphere museum, Smithson considers another singular type of museum: an invisible museum that can be grasped by a kind of "tactile recognition", an infra-museum we could say referring to Marcel Duchamp's *inframince*. What are the challenges of such a museum?

III- THE MONSTRUOUS SPHERE

1- The use of language as *art by casting a glance*

In his article *Ultramoderne*[696], Smithson describes the time of the 1930s as "an infinite pyramid with a mirrored interior and a granite exterior — reality contains the

---

[694] On the permutation of terms in relation to Pascal's phrase, see our Chapter 4 Part II and Jorge Luis Borges's novel *The fearful sphere of Pascal*.

[695] In *A museum of language in the vicinity of art*, in *Writings*, p. 94.

[696] In the September-October 1967 issue of *Arts Magazine*. Smithson writes that " (…) The thirties recover that much hated Gnostic idea that the universe is a mirror reflection of the celestial order — a monstrous system of

illusion or reality encloses the illusion." [697] This pyramid echoes his sculpture *Three mirror vortex* of 1965. If the *Three mirror vortex* had been sealed with an extra mirror in place of its open side, we would have the infinite pyramid described in *Ultramodern*. Let us imagine ourselves locked in such a structure with a flashlight: due to the infinite mirror reverberation, we would no longer know whether it is a tetrahedron or a crystalline sphere (geodesic dome). There would be no way to locate ourselves between these reverberations. Such is the infinite pyramid described in *Ultramoderne*. In this text, Smithson describes the mirror interiors of the buildings of the 1930s as the reflections of a monstrous fourth dimension. In *A museum of language in the vicinity of art*, he also describes the language of artists as "reflections". He thus implies that this language, "a monstrous museum", would be the reflection of a hyper-monstrous dimension. The "infinite multiplication of looking-glass interiors" of the 1930s appears as an image of the museum of language.

As Reflections of a hyper-monstrous dimension, artists' language would have the same status as the "art by casting a glance" that we discussed in Chapter 4 Part II, and that Smithson thinks as a sort of ready-made in the act of looking, which would be the reflection of a fourth dimension. What makes artists' language a kind of "art by casting a glance"? Indeed, "art by casting a glance" is a linguistic act, it is expressed primarily in language: it reverses language's common sense and thus upsets our worldview.

Smithson repeatedly characterizes the language of artists as "surface" thus asserting it as the reflection of a "superior" dimension. He writes that "each syntax is a 'lightly constructed *shell*' or set of linguistic surfaces that surround the artist's unknown motives."[698] Every word is a surface that protects or hides a multiplicity of meanings that suspend the common sense. Language is a surface similar to mirrors, it " 'covers' rather than 'discovers' its sites and situations".[699] Smithson shows how in realizing a rotation of the common sense, each artist[700] builds with language a piece of a

---

mirrored mazes. The thirties become a decade fabricated out of crystal and prism, a world heavy with illusion. " in *Ultramoderne*, in *Writings*, p.64.

[697] In *Ultramoderne*, ibidem, p. 65.

[698] In *A museum of language in the vicinity of art, writings, p. 82*. He follows*: "Here language 'closes' rather than 'discloses' doors to utilitarian interpretations and explanations." — In *Fiction and language in art* he declares that "One will find nothing but stupefying enigmas and baffling surfaces in the writings of artists." In *Fiction and language in art*, Archives of American Art, Smithsonian Institution, reel 3834.

[699] In *A museum of language in the vicinity of art, Writings, p. 78*.

[700] In *A museum of language in the vicinity of art* he focuses especially on Flavin, Andre, Morris, Graham Judd, Reinhardt.

crystalline sphere governed by the surd, so as to "protect the art from rational interpretation".[701]

The use of language by artists as a kind of "art by casting a glance" is an act, a type of gesture. Its status is ambiguous: it appears as a reflection of the fourth dimension but is not of the order of the third dimension, i.e. where the material works are. A particular type of gesture, it is an in-between dimension, a hinge, an *inframince*. In this sense we can say that it is an infra-dimension. If the language of artists is a museum, then it is an infra-museum. What is such a museum?

2- Monster's workshop or the "tactile recognition" museum of the language of artists

Unlike traditional museums based on the concept of history, the crystal sphere of the museum of language is thus entirely built by the artists themselves. It consists in an irrational reconfiguration of history, it is a "fictional wheel of time, something halfway between the real and the symbolic."[702] The infra-museum is an invisible museum whose works could be grasped by a "tactile recognition". It is governed by intuition, a museum for artists where everyone would take the rotations of sense made on words by predecessors to highjack them in varying degrees and thus build new proposals. In this, Smithson's language museum approaches George Kubler's sequences of forms that we developed in our Chapter 4 Part I, where an artist is here to bring a new answer to the problem on which the sequence of objects is based.[703]

Smithson reveals the kublerian aspect of the museum of language as he focuses on a very specific sphere, Ad Reinhardt's Mandala from 1955, *A Portend of the Artist as a Yhung Mandala* (Fig. 3. 83). In this Mandala, Reinhardt reconfigures art history very fancifully, juxtaposing illustrations and symbols from various civilizations since Antiquity.[704] Calling Reinhardt's Mandala a "teratological system", Smithson says one must return to the root of the term "teratos" to understand the challenge of Reinhardt's museum as well as his museum, "the word 'teratology' or 'teratoid' (…)

---

[701] "Usage not meaning protects the meaning of the artist's art work about which only 'nothing' can be said. Artists employ all kind of problematic situations, which can only 'disappoint' the rational mind. Simple-minded platitudes, transparent philosophies, opaque remarks, unexpected sabotage, hackneyed metaphors, lustreless pedantry, all these serve to protect the art from rational interpretation." In *Fiction and language in art*, Archives of American Art, Smithsonian Institution, reel 3834.

[702] In *A museum of language in the vicinity of art*, *Writings*, p. 87.

[703] Let us remember that Smithson had noted how Kubler's theory is based on linguistic grounds.

[704] As epigraph of *A museum of language in the vicinity of art*, Smithson quotes a sentence from this Mandala, "the four museums are four mirrors", showing how the museum of language owes to Reinhardt's Mandala.

has a meaning that has to do with marvels, portends, monsters, mutations and prodigious things (Greek: teras, teratos = wonder). (...) If we accept Ad Reinhardt's 'Portend', the art world is both a monster and a marvel" [705]

The ambivalence of "teratos" is important. Its Latin equivalent is *monstrum* which derives from *mostrare*, to show. In Roman Antiquity, the term refers to curious creatures shown during fairs, it also refers to the divine omen.[706] The exhibition and more generally the museum is the place where the monster is shown, the infra-museum of language is the place where the monster is created. The museum of language is an invisible monsters workshop in which you enter through tactile recognition.

3- Cybernetic spheres: *Pyrophylaciorum* and ice sphere versus *noosphere*

In 1971, Smithson realizes a drawing inspired by one of the engravings of the *Mundus Subterraneus* (1665) by the Jesuit Athanasius Kircher (1602-1680), a work considered as the first treaty of geology. This is Kircher's engraving entitled *Pyrophylaciorum* showing a section of the earth with the underground world as a kind of furnace with a network of fire channels that explode on the surface through boiling volcanoes. This sphere evokes danger, it is "fearful" to use Pascal's word. A cut of the underworld, what remains invisible on the surface but acts as a matrix, it could be an image of Smithson's museum of language. Why does Smithson refer to Kircher? (Fig. 3. 84 and Fig. 3. 85)

The reference to the *Pyrophylaciorum* is clearly provocative: the underground explosive communication network imagined by Kircher stands as the obverse to some ethereal theories at the time in connection with the development of cybernetics and reflections on the network. It is the opposite of the idealist incandescence of the "noosphere" developed by Pierre Teilhard de Chardin.[707]

Indeed, Teilhard de Chardin characterizes the noosphere (from the Greek nous, psyche, mind) as a community of consciousness and human thoughts, a "*nappe pensante*", a sphere of thought that encircles the biosphere.[708] This is a densification

---

[705] In *A museum of language in the vicinity of art, Writings*, p. 87.
[706] The *Littré* dictionary also indicates that the term derives from *monere*, to warn, it is the same movement.
[707] In *The Phenomenon of Man* (1955).
[708] He views the noosphere in terms of evolution. He presents it as the most sophisticated sphere so to speak, after the barysphere, lithosphere, atmosphere and biosphere: "even more definitely individualized than them". He

of human consciousness related to what he calls "planetisation", what we today call "globalization". Before McLuhan, he saw that the globe was becoming always smaller due to the densification of population and the development of communication technologies. He characterizes the noosphere as a kind of collective consciousness of mankind, encompassing all the intellectual activities of the earth taken at every instant, which was made possible due to its "electric contraction" with communication technologies. A Jesuit, Teilhard de Chardin connected the concept of noosphere to the idea of universal love and sharing.

The idea of a sphere of intelligence was used to characterize cybernetics: an invisible network where information circulates around the earth, a second sphere — which is today the internet sphere. In his *Expanded Cinema* in 1971 Gene Youngblood expresses his enthusiasm for the utopian aspect of the noosphere when he writes that it allows man a "greater psychic freedom."[709] Like Teilhard de Chardin, he sees it in evolutionary terms, calling it an extension of our "psychic environment" which would allow a "psychic mobility" for all.[710] Here we find again the problem of technology as an extension of man that Smithson criticized so much in McLuhan's thinking.

Why does Smithson never refer to Teilhard de Chardin's noosphere, he who always defends the intellect (mind) in art? What appears clearly is that he could not support both the utopic and the evolutionary aspects of Teilhard de Chardin's noosphere as a stage reached by man that allows him a certain liberation.

With Smithson's reference to the "collective memory of mankind" of Egyptian rituals developed by Erwin Panofsky in *Tomb Sculpture: their changing aspects from ancient Egypt to Bernini* and that he parallels with computer networks, we can grasp a coded allusion to Teilhard de Chardin's collective consciousness of mankind.[711] It is easy to imagine that Smithson was more in favor of a collective unconscious or of a "non-consciousness" of mankind. Smithson's copy of Kircher's *Pyrophylaciorum* as

---

speaks of "the recognition and isolation of a new era of evolution" and describes the noosphere as "another membrane in the majestic assembly of telluric layers" In *The Phenomenon of Man*, Harper Perennial Modern Thought, 1976, p. 182. (in *Le phénomène humain*, Seuil, 1956, p. 121.)

[709] "Contemporary man is fortunate to have a tool that makes him aware of his own enculturation and thus he enjoys greater psychic freedom than his ancestors. This tool is what Teilhard de Chardin has called the *noosphere,* the film of organized intelligence that encircles the planet, superposed on the living layer of the biosphere and the lifeless layer of inorganic material, the lithosphere. The minds of three-and-a-half-billion humans—twenty-five percent of all humans who ever lived—currently nourish the noosphere; distributed around the globe by the intermedia network, it becomes a new 'technology' that may prove to be one of the most powerful tools in man's history." In Gene Youngblood, *Expanded Cinema*, P. Dutton & Co., Inc, New York, 1970, p. 57.

[710] "Besides the enlargement of the physical world, these media virtually extend our psychical environment, providing a constant stream of moving, fleeting images of the world for our daily appraisal. They provide *psychic mobility* for the greater mass of our citizens." Ibidem.

[711] See our Chapter 2 Part III on the development of the "collective memory of mankind" in relation to cybernetics.

well as the crystalline sphere that he imagines, monstrous with its many facets, thus arise as the reverse of this smooth, ideal sphere.

Before his *Pyrophylaciorum* drawing of 1971, Smithson realizes in 1966 a work that, referring to cybernetics, appears as another kind of obverse to the noosphere's incandescence: *The Cryosphere*, i.e. the ice sphere.[712] It consists in a series of six hexagonal modules, each composed of a flat surface upon which six rectangular parallelepipeds are arranged in a star shape. The six modules are hung on the wall in a line. Each module evokes a wheel, yet frozen (Fig. 3. 86 and Fig. 3. 87). In the small text he writes for this work, Smithson refers to computer code: he speaks of "block encodement" that he synthetizes in a coded formula that he then "decodes" in the text, pointing out that 66, 75% of the work is invisible.[713] Similarly to LeWitt's works on which we focused, they can be rebuilt with the code formula.

In order to enable to grasp the ice sphere aspect of the work, he had the six modules photographed from different angles, making up a photographic montage: such a sphere escapes again from any Gestalt notion. Iced and fragmented, it is a practical response to the incandescence of the noosphere: a kind of non-sphere that Smithson links with entropy publishing the photograph in his article *Entropy and the New Monument*s (published in *Artforum* the same year), alongside the photographs of works of his fellow artists that he links with the issue of entropy (Fig. 3. 88).

The *Pyrophylaciorum* and *The Cryosphere* thus echo the principles of the language museum. One is an explosive and monstrous network, the other is a crystal with hermetic appearance that can be constructed and deconstructed from its coded form according to a principle of expansion/contraction. We could imagine accessing the *Pyrophylaciorum* by a rotation of the sphere of ice, allowing us to enter the monsters workshop.

---

[712] *The Cryosphere* was shown at the *Primary Structures* exhibition at the Jewish Museum, New York, in 1966.
[713] Block encodement #1
01001001001001001 x 12M = 72(I) + 144 (0)
I- 01001001001001001 is the tentative sequence for the placement of the six solid hexagonal modules.
2-each module has 12 mirror surfaces (12M).
3- 6 modules are visible.
4- 12 modules are invisible.
5- 72 mirror surfaces are visible.
6- 144 mirror surfaces are invisible.
7-66 2/3 % of the entire work is invisible.
8- Invent your sight as you look. Allow your eyes to become an invention.
9- Color by Krylon Inc.
In *The Cryosphere*, 1966, in *Writings*, p. 38.

PART THREE

CHAPTER 4

"LISTLESS LAUGHTER AND TORPID HUMOR":
THE COSMOS OF THE "GREAT ART"

We have already heard much about "cool" or "hot" art, but not much about "wet"
and "dry" art.

Robert Smithson, *A sedimentation of the mind: Earth Projects*[714]

Futility, one of the more durable things of this world

Robert Smithson, *An esthetic of disappointment*[715]

Michelangelo's alleged statement that a good sculpture could be rolled down a hill
without breaking, apocryphal though it is, is rather good description of his artistic
ideal.

Erwin Panofsky, *The neoplatonic movement and Michelangelo*[716]

Humor was a sort of savior so to speak because, before, art was such a serious thing,
so pontifical that I was very happy when I discovered that I could introduce humor
into it. And that was truly a period of discovery. The discovery of humor was a
liberation. And not humor in the sense 'humorist' of humor, but 'humor' humoristic of
humor. Humor is something much more profound and more serious and more difficult
to define. It's not only about laughing. There's a humor that is black humor which
doesn't inspire laughter and which doesn't please at all. Which is a thing in itself,
which is a new feeling so to speak, which follows from all sorts of things that we can't
analyze with words. (…) It's almost like a sort of dynamite, of the spirit, isn't it?

Marcel Duchamp, *Interview with Guy Viau*[717]

---

[714] In *A sedimentation of the mind: Earth Projects, in Writings, p. 108.*

[715] In *An esthetic of disappointment*, 1966, p. 335.

[716] Erwin Panofsky, *The neoplatonic movement and Michelangelo*, in *Studies in Iconology: Humanistic Themes in the Art of the Renaissance* (1939), Icon Editions, Westview Press, 1972, p. 172.

[717] Marcel Duchamp, *Interview with Guy Viau for the Canadian Television*, July, 17, 1960, on
http://www.toutfait.com/issues/volume2/issue_4/interviews/md_guy/md_guy.html

The issue of humor and laughter runs singularly throughout Robert Smithson's writings. It is at first sight difficult to grasp it in the midst of the hyperboles of his texts. Smithson discusses on humor mainly in *What really spoils Michelangelo's sculpture* (1966-1967). Remained unpublished during his lifetime, it is the only text he dedicated to an old master.[718] The title is an excerpt from a declaration by Clement Greenberg in *Modernist sculpture: its pictorial past* where the art historian criticizes Michelangelo's sculpture artificial and mannerist aspect.

In taking over the modernist critic's sentence, Smithson reverses its argument and confirms the artificiality of the master's sculpture. The gesture is very significant: he saves Michelangelo from the modernist criticism's vision, he recovers him, and to take the critic against the grain, he connects the master's work to the most archaic art forms by basing his argument on studies by two eminent art historians from the Hamburg School: Erwin Panofsky and Edgar Wind. Smithson sees the issue of humor as essential to Michelangelo's sculpture: it is a kind of tactility, a dimension that can only be felt and is inexpressible through language. He thus connects Michelangelo's work to his own work, and implicitly to Duchamp's work. For each of them humor is a savior: from Neo-Platonism, from retinal art, from modernism. In that it is at works in all "great art."

In his text, Smithson plays on the double meaning of the term humor as both funniness and mood. The subtle oscillation he makes on this double meaning when looking at Michelangelo's work proves essential in order to grasp how he approaches it in his own work. By focusing on the passage from humor as mood to humor as funniness, Smithson introduces an entropic approach of these terms. Humor appears to be ultimately a form of memory in itself.

What is an entropic humor? How does this humor appear as a particular form of memory at work in what Smithson calls the "great art"?

We will see how considering entropy Smithson characterizes this physical approach of humor (I), how he approaches it as the solidification and sustainability of a critical view (II), and how humor acts as an essential form of memory of the "great art" (III).

---

[718] Half of the text is dedicated to the issue of humor. He also makes a long development on humor in *A Museum of language in the vicinity of art* in 1968 when writing on Ad Reinhardt's work.

I- ENTROPIC HUMOR

1- From humor to humor

Umor (Latin): liquid — In the theory of humors in the Renaissance, humor as mood refers to the body fluids that are said to be responsible for a person's temperament, the Latin term *umor* means "liquid". The mood of a person is considered to be a fatality. In his text on Michelangelo, focusing on the Master's *Slaves*, Smithson creates an oscillation between the two meanings of humor as mood (the Renaissance meaning) and humor as funniness: "The fatality of humor begins in languor and ends in a farce." [719]

According to the Neo-Platonic conception, the "fatality of humor" is to be understood as the melancholic mood of the soul that is held imprisoned in the body, the earthly prison. In *The neoplatonic movement and Michelangelo*, Erwin Panofsky notes that in the Renaissance, there are four humors associated with the four elements:

"these same four elements were unanimously held to be coessential with the four humours which constitute the human body and determine human psychology. And these four humours were in turn associated, among other things, with the four seasons, and with the four times of day: air was associated with the sanguine temperament, with spring and with morning, fire with the choleric temperament, with summer and with midday; earth with the melancholy temperament, with autumn and with dusk; and water with the phlegmatic temperament, with winter and with night."[720]

In his copy of Panofsky's book, Smithson had underlined that passage. In his own text, the tragedy of the fatality of humor – a fatality according to the Neo-Platonic view — becomes a "farce".[721] He deals with this passage from tragedy to farce as follows: "but what appears at first sight to be a tragic expression is nothing more than an enigmatic joke. What could be more preposterous than a Bacchic saint holding the tragic mask of the artist? (…) Could it be that Michelangelo is nothing but a spoiled

---

[719] In *What really spoils Michelangelo's sculpture*, in *Writings,* p. 347.

[720] In Erwin Panofsky, *The neoplatonic movement and Michelangelo*, in *Studies in Iconology: Humanistic Themes in the Art of the Renaissance* (1939), Icon Editions, Westview Press, 1972, p. 206.

[721] We can also see a reference to Karl Marx's famous statement in his text *The 18th Brumaire of Louis Bonaparte*, in which he says, in reference to Hegel, that the great facts and great personages occur twice, the first time as tragedy, the second as farce: "Hegel remarked somewhere that all great world-historic facts and personages appear, so to speak, twice. He forgot to add: the first time as tragedy, the second time as farce."

comedian, who spent long tedious hours working out intricate gruesome jokes, that really aren't too amusing? Are the grotesque horns on his Moses some kind of a limpid jest? In this drowsy domain devoid of mysterious smiles, there is an undertone of listless laughter and torpid humor."[722]

The farce is the result of a distancing from events, and this distance allows lucidity. Michelangelo's humor, if this term can be used about him as Smithson suggests, is a distancing from the fatality of the melancholic humor that, according to Neo-Platonism, characterizes the mood of the soul during its earthly life.

Smithson deals with humor as a crystallization of mood. Like the formation of crystal, it appears as the solidification of a material that was initially fluid. The passage from humor/liquid to humor/solid is thus an entropic process. This issue appears to be essential in relation to memory: the solid humor would be what remains of the fluid humor (mood), it makes sustainable what is most fleeting. Distancing from its condition, the melancholic mood transforms into solid humor, marked in the stone. What does this process imply? What is solid humor?

2- Humor as dessication of fluidity

Smithson describes Michelangelo's sculptures, and especially the *Slaves*, as if they were underground and in the process of disintegration related to entropy. In this, Smithson takes the obverse of Panofsky who expressed, repeating Giorgio Vasari, that the slaves seem to get out of the water, liberating themselves from a sinking vessel.[723] Such is the Neo-Platonic approach of Michelangelo's work: the soul is freed from the earthly prison, the *carcer terreno*, pulling itself up to get back to its celestial purity. Smithson overbalances the sky, making it rotate to one hundred eighty degrees: "Heaven becomes a pigsty, a dirt enclosure completely airless, flooded with bilge water."[724] About the *Slaves*, he writes that "not sloth, but the deterioration of sloth is felt, a decayed acedia that proclaims an inner grief through a profound sense of laziness."[725] Under Smithson's hand, the Master's entire work is described as being in

---

[722] In *What really spoils Michelangelo's sculpture*, writings, p. 347.
[723] Smithson had underlined this passage in his copy of Panofsky's text: "the forms emerging from the stone as from the water in a slowly drained vessel."
[724] In *Writings*, p. 348.
[725] In *Writings*, p. 347.

the process of decomposition – and due to this process, only tiny fragments of the works are discernible.[726]

In *Entropy and the New Monuments*, Smithson similarly makes Plato's solids fall down from their Ether. In crossing references, he links six types of crystals to six forms of laughter. The six types of crystals recall Plato's five solids, about which it is known that four are associated with the four elements. While in the theory of humors, each mood is associated with one of the four elements, Smithson then characterized six forms of laughter each associated with one of the six types of crystals:

"Let us now define the different types of *Generalized Laughter*, according to the six main crystal systems: the ordinary laugh is cubic or square (Isometric), the chuckle is a triangle or pyramid (Tetragonal), the giggle is a hexagon or rhomboid (Hexagonal), the titter is prismatic (Orthorhombic), the snicker is oblique (Monoclinic), the guffaw is asymmetric (Triclinic). To be sure this definition only scratches the surface, but I think it will do for the present. If we apply this 'ha-ha-crystal' concept to the monumental models being produced by some of the artists in the Park Place group, we might begin to understand the fourth-dimensional nature of their work. From here on in, we must not think of Laughter as a laughing matter, but rather as the 'matter-of-laughs.' "[727]

The "ha-ha-crystal" points this passage from humor as mood to humor as funniness, from liquid to solid, which Smithson emphasizes in characterizing minimalist sculpture as "solid-state hilarity."[728] How can laughter be grasped in the solid? He asks it as follows: "Laughter is in a sense of kind of entropic 'verbalization.' How could artists translate this verbal entropy, that is 'ha-ha', into 'solid-models'?"[729]

From Michelangelo's work to minimalist sculptures, laughter is associated with gravity, entropy. This is what falls, an effect of entropy. On that point, Smithson shares Charles Baudelaire view writing in *On The Essence of Laughter and in the*

---

[726] This passage enables to grasp the point: " A sinking city of muscles submerges the mind in a somnolence so awful that no escape is possible. A Weltanschauung of crisscrossing flesh forces the mind down into brute matter, every action is sunk in 'melancholy'. In the 'slough of Despond' the foul rot of nature engulfs the entire system of gods and demons. Never has stagnation been more total. Weariness turns into humorous levels of moribund grandeur. Every creature undergoes incessant punishment, because of the enormous weight of this ironclad universe. Bodies are swollen out of proportion, fattened like hogs, they fall downward toward fetid swamps. Heaven becomes a pigsty, a dirt enclosure completely airless, flooded with bilge water—with skies of dusty tar. Muscles like enormous worms, and polypi fade under a sickly ashen light. A lumbrous mood thick with idleness and despair faults every beautiful monster." In *Writings*, pp. 347-348.
[727] In *Entropy and the new monuments*, in *Writings,* p. 21.
[728] Ibidem, p. 21.
[729] Ibidem, p. 21.

comic in the plastic arts that "human laughter is intimately linked with the accident of an ancient Fall, a debasement both physical and moral."[730]

In *A sedimentation of the mind* (1968) Smithson develops on the issue of humor as mood in a chapter he calls *The climate of sight*. Without referring to the double sense of humor on which he plays when looking at Michelangelo's work, he notes however, that in art the fluid is always favored over the dry — this latter is avoided as it is not reassuring: "We have already heard much about 'cool' or 'hot' art, but not much about 'wet' and 'dry' art. The viewer, be he an artist or a critic is subject to a climatology of the brain and eye. (…) they are grateful for an art that evokes general liquid states, and disdain the dessication of fluidity. They prize anything that looks drenched, be it in canvas or steel. Depredation of aridity means that one would prefer to see art in a dewy green setting, say the hills of Vermont, rather than the Painted Desert."[731]

The "dry" art reminds of Duchamp's defense of a "dry" conception of art when he says: "The mechanical drawing for me was the best form for that dry conception of art."[732] Dry art is an "intellectual" art, a word Duchamp also rejects, preferring the term "grey matter".[733] Dry art like humor are both "dessication", respectively of fluidity and mood, which is actually the same thing if we consider the etymological root of the term "humor". How does dry humor appear disturbing if not frightening?

II- LAUGHTER AS CRITIQUE AND "DOWNWARD TOWARD INFINITY"

1- In the cave

Laughter makes fall all things and this fall "saves" from the weariness of the tragic by making all things flow underground. This reversal of the Neo-Platonic order opens up to another order, that of the grotesque: "Weariness turns into humorous levels of moribund grandeur." [734]

---

[730] Charles Baudelaire, in *On The Essence of Laughter and in the comic in the plastic arts (1855), in The Mirror of Art, Doubleday Anchor Book, 1944, p. 135.*
[731] *A sedimentation of the mind: earth projects*, in *Writings, p. 108-109.*
[732] In *Interview with James Johnson Sweney*, in *The Essential Writings of Marcel Duchamp*, op. cit., p. 130.
[733] "I am interested in the intellectual side, although I don't like the word 'intellect'. For me 'intellect' is too dry a word, too inexpressive." Ibidem, p. 137.
[734] In *Writings*, p. 348.

Etymologically, "grotesque" means "that which is buried under the earth", in the cave. The art of the grotesque was developed in the late fifteenth century after the discovery of fresco paintings in ancient caves and crypts near Rome. Smithson notes this etymology in the end of his text on Michelangelo as he gets back to the modernist criticism: "Realistic and naturalistic criticism fears the cosmic laughter inherent in the grotesque (grotto-cave)—the abyss." [735] Thus he immediately connects the grotesque to what is critical. It is what is "truly underground" to use the expression with which he characterizes his tautological project for a *Cinema Cavern* in 1971 for which he wanted to film the process of construction of a grotto and project the film in the cave itself, an amused response to the utopianism of Gene Youngblood's *Expanded Cinema* (Fig. 3. 89).

Smithson conceives his art as the attempt to update the art of the grotesque as it developed in the middle of mannerism. This art is a reversal of accepted behaviors and namely the rules of the illusionistic space of perspective. It creates a new order that obeys neither the laws of gravity or proportions. [736] In 1961 during his stay in Rome, Smithson was greatly influenced by the art of the grotesque that he found in the villas and museums. The letters he writes to his wife Nancy Holt at that time are strewed with small mannerist and grotesque characters evoking the fall, namely a small drawing he calls "Rome is still falling." (Fig. 3. 90 to Fig. 3. 94) Thereafter, he continues to relate his work to Mannerism, coining the term "abstract mannerism." [737]

When looking at Michelangelo's sculpture works in the prism of the grotesque, Smithson supports his argument by referring to art historian Edgar Wind and shows that the grotesque is at work in the Master's work but that it was forgotten by art history: "Edgar wind has pointed out that Michelangelo never really abandoned his 'relish for the Bacchic mysteries he had learned in his youth.' (…)'We hear much about Michelangelo's somberness and depth, but too little is said about his grim sense of humor and his genius for the grotesque.' "[738]

Indeed, Michelangelo creates grotesque figures in his marginal works, the drawings he gave to his friends and those he made for his students, the disciples of his studio:

---

[735] In *Writings*, p. 348.

[736] On that point, art historian Wolfgang Kayser writes, in an essay that Smithson had read: "it is our world which ceases to be reliable, and we feel that we would be unable to live in this changed world. The grotesque instills fear of life rather than fear of death. " In *The Grotesque in art and literature*, Mc Graw-Hill Book Company, Inc. New York, 1966, p. 185.

[737] See Chapter 1 Part III of this dissertation about abstract mannerism.

[738] In *Writings*, p. 347.

as an example *The Fall of Phaeton* dedicated to Tommaso dei Cavalieri where satires participate in the figured fall and thus confirm Smithson's point that the grotesque is a distance taken from tragedy (Fig. 3. 95). Whereas Michelangelo's sculptural works are usually not characterized as grotesque, Smithson aims at revealing them as such.

2- Destructive laughter

"Enigmatic joke", "gruesome jokes that really aren't too amusing", "a devastated sense of humor, a ruined joke", "listless laughter and torpid humor", or the "the annihilating idea of humor": this is how Smithson characterizes laughter in Michelangelo's work. This laughter appears clearly serious if not disturbing. On this point he meets Charles Baudelaire's analysis that "the laughter caused by the grotesque has about it something profound, primitive, and axiomatic."[739] Smithson had read Baudelaire's essay on laughter which he quotes in epigraph of his text on mannerism in film, *From Ivan the terrible to Roger Corman or paradoxes of conduct in mannerism as reflected in the cinema*: "laughter is the revelation of the double."[740] Critical laughter is always dual, this is what Smithson shows when playing on the double meaning of the word *humor*. Behind the amused surface, it is cold. The "listless laughter and torpid humor" of Michelangelo's work echoes Baudelaire's description of Melmoth's laughter: "His laugher freezes and wrings his entrails. It is a laugh which never sleeps, like a malady which continues on its way and completes a destined course."[741] For Baudelaire as for Smithson, laughter gives vertigo and overbalances any order. Smithson writes that the mannerist artist "casts a cold eye, and what he sees he treats with humor and terror."[742]

In order to characterize the grotesque in Michelangelo's works, he uses the expression "the annihilating idea of humor" that he borrows from art historian Wolfgang Kayser. What is this annihilating idea of humor? As a good Mannerist artist, Smithson refers to it by reversing it: " 'the annihilation, says Kayser, of finite reality can and may take place only because humor also leads upward toward the *idea of infinity*'. But in

---

[739] Charles Baudelaire, in *On The Essence of Laughter and in the comic in the plastic arts (1855), in The Mirror of Art, Doubleday Anchor Book, 1944, p. 144*.
[740] In *From Ivan the terrible to Roger Corman or paradoxes of conduct in mannerism as reflected in the cinema*, 1967, *Writings*, p. 349.
[741] Charles Baudelaire, in *On The Essence of Laughter and in the comic in the plastic arts (1855), op. cit., p. 139*.
[742] In *From Ivan the terrible to Roger Corman or paradoxes of conduct in mannerism as reflected in the cinema*, 1967, *Writings*, p. 350.

Michelangelo's cosmological system of figures, the direction is downward toward infinity." [743]

Why does one enter infinity from "downward"? The descent into the cave "forces the mind down into brute matter", notes Smithson. [744] This "downward toward infinity" is a creation of the mind working in the solid matter and keeping stuck in it: "no escape is possible". [745] He also states that "Michelangelo's art is more abstract than 90 percent of the so-called abstract art ever produced in this country."[746] What he calls "abstract" art is an intellectual work, grey matter. It is supported by Michelangelo's statement that Smithson noted in his diary: "one paints with the brain, not with the hand".[747] The resilience of an artwork depends on the strength of mind with which it is built. Erwin Panofsky confirms it when he writes: "Michelangelo's alleged statement that a good sculpture could be rolled down a hill without breaking, apocryphal though it is, is rather good description of his artistic ideal."[748] Thus, what is grotesque? It is the intellectual art *par excellence*, what is critical and powerful.

Let us get back to Smithson's drawing in his letters to George Lester dated September 22, 1961, that we saw in our Chapter I Part III: this small drawing announces the "downward toward infinity" that he sees in Michelangelo's work. A figure lies underground in a kind of grotto, and below the drawing is written: "the way up is the way down! The above figure knows no model. The eye of nature is the black hole posing as the sun which means in English o=zero." [749] (Fig. 3. 96)

When he says "the way up is the way down!" he quotes Heraclitus that he read in epigraph of T. S. Eliot's *Four Quartets*, an author who influences him a lot in the early 1960s and whom he read at the time of his stay in Rome. Rather than elevate the

---

[743] "Modernist criticism recoils at the sight or thought of Michelangelo, because the organic is threatened by what Wolfgang Kayser calls 'the annihilating idea of humor'. Realistic and naturalistic criticism fears the cosmic laughter inherent in the grotesque (grotto-cave) — the abyss. 'The annihilation, says Kayser, of finite reality can and may take place only because humor also leads upward toward the 'idea of infinity'. But in Michelangelo's cosmological system of figures, the direction is downward toward infinity." In *Writings*, p. 348.

[744] "A Weltanschauung of crisscrossing flesh forces the mind down into brute matter", in *Writings*, p. 347.

[745] In *Writings*, p. 347.

[746] In *Writings*, p. 346.

[747] In *Notebook*, in Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834. (*si dipinge col cervello e non con le mani*).

[748] Erwin Panofsky, *The neoplatonic movement and Michelangelo*, in *Studies in Iconology: Humanistic Themes in the Art of the Renaissance* (1939), Icon Editions, Westview Press, 1972, p. 172.

[749] Robert Smithson, Correspondence with George Lester, in Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 5538. "The figures in this new series live in a world without nature. Nature cannot touch these figures because the figures are not real. The figure in this sketch is where it is not. The lovely terror beneath beauty. Animals, plants + minerals unlike animals, plants + minerals far from the baring eyes of nature. Transformations within transformations. Colors without color. Etc etc... the way up is the way down! The above figure knows no model. The eye of nature is the black hole posing as the sun. which means in English o=zero."

soul, we must make it go down to the cave. As for the figure, it "knows no model" because it is the fruit of imagination and not an imitation of nature. The laughter of the cave is the fruit of the highest intellectual activity, for Smithson it is the essence of the "truly" abstract art, the one made "with the brain, not with the hands." as says Michelangelo.[750]

III- THE COSMOS, THE ABSTRACT INFINITE SPHERE

1- Laughter by intuition

In his study on Michelangelo's *Slaves*, Erwin Panofsky focuses on the two monkeys hidden behind each *Slave*. The monkey behind *The Dying Slave* is easily discernible, big enough, the other snuggled behind the left knee of *The Rebellious Slave* is much less visible (Fig. 3. 97 and Fig. 3. 98). Panofsky denies that these monkeys could here symbolize the arts (at Michelangelo's time, painting was called "the ape of nature") but he says that Michelangelo placed them here as more common symbols of the baseness of the soul, of what is subhuman in the human.[751] Panofsky does not refer to the grotesque when considering Michelangelo's sculpture. However, his remark about the monkey hidden behind the knee of *The Rebellious Slave*, barely discernible, and the fact that it symbolizes the lower soul is not far from Smithson's reading of Michelangelo's sculptural work: only clues in the sculpture enable to grasp the grotesque, it is a hidden grotesque unlike the explicit one of the intimate drawings.

---

[750] When defending the intellect, Smithson always insists on the fact that it works in matter and time. Michelangelo "spent long tedious hours working out intricate gruesome jokes " he writes. He also defends the "time of the artist" in *A sedimentation of the mind*. Humor elaborates in time, it is a material work. Marcel Duchamp also deals with that issue, having spent more than eight years of work on *The bride stripped bared by the bachelors, even* and each ready-made is the result of a reversal of the common use of language, a work which gets elaborated in time. The issue keeps the same with many so-called conceptual artists in the 1960s. Mel Bochner remarks on the problem as follows: "I'm not sure how to express it, but certain art looks back at you with the time that the artist has spent looking at it." In *About Eva Hesse*, in *Solar system and restrooms, writings and interviews*, 1965-2007, October books, MIT Press, 2008, p. 155.

[751] See Erwin Panofsky, in *The neoplatonic movement and Michelangelo*, in *Studies in Iconology: Humanistic Themes in the Art of the Renaissance* (1939), Icon Editions, Westview Press, 1972, p. 195: "more closely akin to man in appearance and behaviour than any other beast, yet devoid of reason and proverbiality prurient (*turpissima bestia, simillima nostril*) the ape was used as a symbol of everything subhuman in man, of lust, greed, gluttony and shamelessness in the widest possible sense. (in medieval art the fettered ape or monkey thus symbolizes frequently the state of the world before the New Revelation"). Thus the 'common denominator' of the Slaves as indicated by the ape would be: animal nature. And this recalls to mind the fact that the Neoplatonism had termed the 'lower soul' *commune cum brutis*: that which man has in common with the dumb beasts. From this point of view the apes, designating the lower soul, are perfectly logical attributes of fettered prisoners. Tied as they are to the herms in which matter itself shows its face, as it were, the Slaves symbolize the human soul in so far as it is devoid of freedom. We may remember both the age-old similes of the *carcer terreno* and the *prigion oscura*, and the Neoplatonic expression for the principle which binds the incorporeal soul to the material body: it was called *vinculum* which means both 'connecting link' and 'fetter'."

By calling Michelangelo's work an "enigmatic joke", Smithson suggests that the Master's laughter – let us now use an expression by Baudelaire – "calls for the intuition to grasp it"[752]: it is not explicitly dealt with and cannot be translated verbally. However, marked in matter, that laughter's stealth and malice can be felt in the solidity of the stone. We recognize the encounter of the eternal and the transitory theorized by Baudelaire. Smithson deals clearly with it when looking at the work of Donald Judd for which he writes "what seems so solid and final in Judd's work is at the same time elusive and brittle."[753]

Besides, Smithson had initially titled his article about the artist "*quasi-solids – the search for the elusive edge*", before replacing it with the literal name of the artist, Donald Judd. He writes elsewhere: "Futility, one of the more durable things of this world"[754] and he praises mannerism because there "everything turns away from the center of interest".[755] The "great art", an expression that he uses repeatedly, consists in solidifying what is at work in the margin, what may appear trivial and insignificant. He shows this point when confronting Parmigianino to Rembrandt: "Parmigianino transforms a humorous illusion into a solid fact, while Rembrandt turns a solid fact (himself) into a humorous sensation."[756] This remark echoes a document of his archives where he puts back to back Parmigianino and Rembrandt: behind the reproduction of Parmigianino's *Madonna of the rose*, he indicates a painting by the Dutch Master, *The artist laughing* (1668) from the Wallraf Richartz Museum in Cologne (Fig 3. 99 and Fig 3. 100). Above the inscription, he quotes Baudelaire: "he laughs and laughs, ceaselessly comparing himself with the poor human worms who form the bulk of mankind. He is strong! He is intelligent." He finds that when Rembrandt represents himself laughing, there is not much to dig behind, whereas Parmigianino's disturbing paintings invite to grasp a deeper hidden humor. It is a painting that is "grey matter" to use Marcel Duchamp's words, and it involves a reversal of order.[757] He sees Rembrandt as he sees some abstract painters of his time: naive or playing the role of the artist that society asks them to play, representing their

---

[752] Charles Baudelaire, in *On The Essence of Laughter and in the comic in the plastic arts (1855), op. cit.*, p. 144.
[753] In *Donald Judd*, *Writings*, p. 6.
[754] In *An esthetic of disappointment*, 1966, in *Writings*, p. 335.
[755] In *From Ivan the terrible to Roger Corman or paradoxes of conduct in mannerism as reflected in the cinema*, 1967, *Writings*, p. 349. — "This is true of many mannerist pictures, where for instance everything turns away from the center of interest. This turning away from what is important is at the bottom of the a-effect."
[756] In *From Ivan the terrible to Roger Corman or paradoxes of conduct in mannerism as reflected in the cinema*, 1967, *Writings*, p. 350.
[757] Rembrandt is also maltreated by Marcel Duchamp who suggested to use one of his paintings as ironing table. This is another link between Smithson and Duchamp on the defense of a painting that is all "grey matter".

selves, happy or tormented in an image that keeps reassuring. In his text on Michelangelo, Smithson writes: "Could it be that great art has a 'knowledge' of corruption, while 'natural' art is innocent of its own corruption because it is mindless and idealess?" [758] What is this "great art"?

2- The cosmos of "great art" and the system

Under Smithson's hand, *The Slaves* are characterized as "surfaces", a term he also uses repeatedly to describe his three-dimensional works and those of his contemporaries. In remembering that in mathematics an *n* dimension is considered to be the mirror surface of an *n* + 1 dimension, we grasp that Smithson deals with art works as if they were the reflections of a fourth dimension. In *Entropy and the New Monuments*, he speaks of a "ha-ha crystal" and of the "four-dimensional aspect" of the minimalist works, and we have seen in our Chapter 4 Part II that he characterizes the fourth dimension as a kind of raw artistic thought, whose reflection is an "art by casting a glance".

Smithson also often uses the term "cosmos" to describe this fourth dimension of the gaze: it is in this cosmos as invisible dimension that we find the conditions of art.

The cosmos about which Smithson deals is an ordered universe but irrationally ordered, governed by intuition and the unconscious. This is an intuitive and intellectual sense working underneath perception. It is both powerful, speculative and fragile. Smithson insists about the fact that "What the artist seeks is coherence and order—not 'truth', correct statements or proofs. He seeks the fiction that reality will sooner or later imitate."[759] Unlike chaos, this cosmos is based on a dual principle: "Unity is a natural idea, that belongs more to life (also called reality) and not to the terrible dualities of great art. Unity has its origins in chaos, while duality has its origins in the cosmic. And every cosmic system is a false one, that at times slips into the chaos of nature. This falseness must be protected from the murky waters of life's truth. Nothing is more corrupted than truth." [760]

Smithson's cosmos is a singular dimension since it keeps firmly rooted in perception and matter. It builds itself in it, establishing a critical distance, which prevents it from

---

[758] In *Writings*, p. 346.
[759] In *A museum of language in the vicinity of art*, in *Writings*, p. 91.
[760] In *The Shape of the future and memory*, in *Writings*, p. 333.

becoming an equivalent of the Platonist Ether. Smithson uses the term "cosmos" to support his conception of art as universal, where the self of the artist as well as that of the viewer is put aside: "Art is a cosmos not a person." he writes in *Notes from a paradigmatic treatise on visible language*.[761] It is in this sense that what Smithson calls "cosmic laughter" is to be understood: it is the highest detachment from the tragic. He explains it as follows:

"I see the possibility of an art of unmaking. As long as art is thought of as creation, then it will be the same old story. Here we go again, I don't know, creating objects, creating systems, building a better tomorrow. So the thing to do, I guess, is to posit that there is no tomorrow: nothing but a gap. A yawning gap. Then out of that, you see, comes a… It seems sort of tragic in a way… you see, what immediately relieves it is an irony of sort that gives you kind of a sense of humor. That's why I say the element of parody comes into it. It's that cosmic sense of humor, I think, that makes it all tolerable. It sort of just vanishes — you know, receding back into the sites. It's a two way street. It's not a one way street anyway you know. It's always back and forth, to and fro (…) And it gives you a certain exhilaration, I guess."[762]

As a detachment from the tragic and the subjective, the "cosmic laughter" also undermines any type of system. Smithson gives the example of the clown for which one can never predict what he will do as he does not act mechanically and undermines the limits of the system, disrupts it, overbalances it, making everything fall down to entropy. The cosmos of "great art" acts similarly. He explains it as follows:

"In other words, there's, like, the right world of the bourgeois middle class, and then you have this other world. They're sort of like the rational numbers, you know, people that live according to the social reality, they're rational numbers. And then you have these oddities, like tramps, clowns and things like that, and they seem to be irrational numbers. They exist too, as much as the rational numbers exist. I think I'm more interested in those irrational sectors. It becomes a parody to a certain extent. (pause) it becomes more interesting to see what a clown does with tightrope walking rather than the tightrope walker does. You can always expect what a tightrope walker will do — it's mechanical process. But you can never expect what the clown will do. So I guess

---

[761] In *Notes from a paradigmatic treatise on visible language*, in Robert Smithson and Nancy Holt papers, Archives of American Art, Smithsonian Institution, reel 3834.
[762] In *Interview with Patricia Norvell*, in *Recording Conceptual Art,* op. cit., pp. 133-134.

it's that unexpected aspect that's always turning up and turning against itself. The limits are always against themselves. As soon as you think you have the limits established they're there; but then again they're not there."[763]

Unlike Clement Greenberg's categories of "high art" and "low art", Smithson's "great art" is unclassifiable, it is governed by humor that may arise in any system like a virus or computer bug to destabilize its limits. Reversing the systematic and mechanical order, humor surprises. And as surprise enables memorization, this humor then appears as the essential form of memory of the artistic cosmos. What makes this humor solid is that it creates memory.

The artistic cosmos is what Smithson calls at the very end of his text on Michelangelo, "the infinite abstract sphere." He coins the expression to characterize the dome of the Medici Chapel (Fig. 3. 101 and Fig. 3. 102).

In Chapter 4 Part II, we saw how his drawing of this dome looks more like the structure of his first nonsite, *A nonsite (an indoor earthwork)* from 1968 than like the dome itself. The nonsite thus realizes a rotation of this cupola, reversing the "abstract infinite sphere" (Fig. 3. 103).

This sphere appears in another scale in Michelangelo's famous drawing *Il sogno della vita umana* (1533), where a young man leans on a sphere that he also seems to protect while receiving inspiration from an angel (the wind) blowing over his forehead (Fig. 3. 104). Marked only with the line of the equator, the sphere evokes the globe but it is abstract. It reminds of the clearly discernible globe on which leans the Jesus from Parmigianino's *Madonna of the rose* realized three years earlier: it is as if Michelangelo had rotated this globe, now revealing it as abstract sphere, the raw artistic imagination, whereas the masks in the box on which the man seats reveal the multitude of futile appearances with which he will act or has been able to act in this sphere.

In his works and throughout his writings Smithson pursued the rotation, the reversal, the permutation of the terms of this "fearful sphere" in Pascal's words about whom he said how much his art was indebted to. This sphere is both wonderful and monstrous as he shows when speaking of Ad Reinhardt's sphere. As a distancing from a prior

---

[763] In *Interview with Patricia Norvell*, in *Recording Conceptual Art*, op. cit., pp. 132-133.

state, each rotation of the sphere offers this sort of instant crystallization that is humor, a relativistic vision, a lucidity: a salvage.

The rotation appears in the rawest aspect in the sketch of another "infinite sphere" where the Latin verb *revolvere* reads in both directions of rotation (Fig. 3. 105). Here we find again the idea of the artists' museum of language with all the contractions, expansions, rotations and permutations with which it endlessly builds itself:

The word is the thing
   the thing is a word
 a word is the thing
   the thing is a word

Conclusion

An die Geschichte verweise ich euch, forscht in ihrem belehrenden Zusammenhang nach ähnlichen Zeitpunkten, und lernt den Zauberstab der Analogie gebrauchen.

Novalis, *Die Christenheit oder Europa*[764]

It is as if Bob took the rational, Faustian dream of man ordering nature into a refound and progressive Eden, and knowing its futility he sought instead to build some corners of hell here and there (…) His drawings often take on the look of a wild and paranoid gothic Walt Disney disanimating, a dying world — all done lovingly.

Carl Andre[765]

Through the stages of our research we saw how Smithson reaffirms a semiotic basis for visual arts, namely an invisible structure that is essential in classical art. However, in order to reintroduce this basis, Smithson goes through issues at work in cybernetics where he sees new representation problems. With the principles of cybernetics, he formulates a critique of modernist abstraction and builds the foundations of his plastic practice. Smithson is one of the American artists of his generation who paid the most attention to the work of Marcel Duchamp and understood its challenges. Like Duchamp's works, his works are based on semiotic operations. They achieve rotations of meaning that reveal at the different levels that we studied through our three parts: rotation of the notion of timelessness as traditionally dealt with in Western culture, rotation of modernist abstraction, rotation of the relation to time and memory. With these rotations Smithson rethinks the forms of the artwork in the age of electronics. His work is built on the structure of language and in the interstices of meaning.

---

[764] Novalis, *Christianity or Europe*, "I refer you to history. Search in its instructive continuum for similar times and learn to use the magic wand of analogy."

[765] Carl Andre, 1975, Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834.

In our first part, we have seen how Smithson searches for the sources of the problems with modernism by questioning Western religious painting, reeling back to pre-Renaissance art. With this questioning he achieves a rotation of the concept of timelessness from its religious meaning commonly understood to an indifferent timelessness first consisting in the repetition of the signal of his work *The Eliminator*. From a type of painting with organic forms he shifts to crystalline structures that put upside down the modernist ideals of medium specificity. On this point, we saw the importance of Ad Reinhardt's influence on him and we also saw how this work is at the crossroads of several practices that bring forward the issue of the haptic in the experience of a work, thus countering the opticality defended by the Modernist critique. Smithson pursues the rotation of the sense of timelessness when focusing on the issue of entropy to which he connects Dan Flavin's work. The timelessness now involves the problem of the degradation of materials or signals, joining the issues at stake in cybernetics. "Entropy is beauty", a short sentence that he annotates in the margins of Norbert Wiener's *The human use of Human Beings* becomes the *motto* of his plastic practice. Norbert Wiener's approach of cybernetics and George Kubler's theory of formal sequences open to a plastic approach based on language.

Through our second part, we have seen how the idea of nonsite that Smithson develops from 1968 consists in a dismantling of the principles of modernist abstraction with the principles of cybernetics. Smithson achieves this dismantling through semiotic operations based on language, the first being to rotate the meaning of "abstraction" as understood in the modernist sense, making it fall to the common sense of the term. With the same gesture he asserts another plastic operation based on language: the shift of scale. He thus redefines artistic abstraction by creating what he calls "degrees of abstraction" and in his later works "ongoing abstractions", both of which aim at an understanding of the process by which abstraction gets built. In this reversal, he uses terms from the fields of communication theory and cybernetics revealing the plastic issues at stake with new technologies. However, he uses very little technology, preferring to build the nonsite as an archaic multimedia work. To fully understand Smithson's gesture, we saw how the concept of nonsite differs from sculptural approaches focused on the concepts of site and place in the 1960s. We

analyzed how with the shifts of scale of the nonsites, Smithson reactivates differently the Duchampian *inframince*.

The third part focused on the problems of time and memory in Smithson's new type of abstraction. We analyzed how Smithson characterizes the place of the viewer for his art, refusing a certain romantic legacy on which modernism is grounded. In contrast with the heightening of the artist or the spectator's self that he sees as an artificial construct that masks other problems since the Romantic era, he emphasizes on the impersonal and timeless character of ancient funerary art. He translates the issues at stake with such an art in considering contemporary technologies such as photography and cybernetics. Smithson sees ancient funerary art as an example of memory working by contraction / expansion, a memory that is never fixed and static but always in motion and that he analyzes in an entropic sense. Finally, Smithson reactivates Baudelaire's thesis on the eternal and the transient by focusing on a particular form of memory: humor and laughter, a memory that is both ultimate and entropic marked in the material through a semiotic operation.

I- Non-future of Robert Smithson

We have seen that like other artists of his generation, Smithson sought new ways of looking at works of art in relation to time. He saw that it was not possible to pursue the path of modernism as advocated by the critique since it kept related with the idea of progress. If he had heard the term "postmodernism" to which he was *a posteriori* too easily linked because of his use of collage and quotation in his written works, it is likely that he would have mocked it with humor. He was aware that one was rather directing towards a kind of "hypermodernism" a modernism pushed to exaggeration and with *n* dimensions, whose artistic specification masks under various traits but pursues the self-referential questioning of modernism. By building resonances between the most contemporary and the most archaic, for example as we have seen between the hieroglyphics of ancient tombs and the channels of electronic computers, Smithson seeks a way out of the problems of the linearity of history with which modernism still deals. His gesture is similar to those of other thinkers, writers and artists since the beginning of the twentieth century who thought possible ways out of

the issues of modernity, in particular Walter Benjamin in a different context, but also Aby Warburg earlier in yet another different context.

We saw how Smithson considers the principles of cybernetics in order to envision a new relation to time and a new way of thinking the work of art. In this he is inspired by the structuralist approach developed by art historian George Kubler in *The Shape of time*. Thinking the principles of cybernetics in artistic terms, in particular with the principle of feedback of information, Smithson dismantles them and leads to a collapse of the notion of system that is so essential to cybernetics. In this he differs from many of his contemporaries approaches who defend in various ways a systematic logic for their art works.

The way Smithson thinks the principles of cybernetics in plastic and aesthetic terms was not pursued further. It has almost no actuality today. Yet it clearly resonates with contemporary issues at stake with the developments of the digital. The main resonance is the principle of contraction / expansion of artworks on which we focused. What does this principle imply today?

II- Art and function of the artist in the age of electronics and digital: contraction/ expansion and ubiquity

1- Contraction / expansion of the work

We have seen that the principle of contraction / expansion of Smithson's nonsites follow the characteristic form of the spiral. This principle is at work in various ways in the art from the 1960s on. The contraction enables the reduction of a work to a minimal and permanent coded form, a score or statement that will eventually enable a possible redeployment as a variable and ephemeral form. We have seen how Sol LeWitt works with this principle for his *Wall Drawings* and how Lawrence Weiner works differently with it in his works. For both artists, the text acts as a coded form of the work (contraction) that can redeploy spatially with variations in its realization in an endless fashion (expansion). As early as 1966 Smithson thinks the coding principle

for his work *The Cryosphere*. The sculpture can be reduced to a coded form, consisting of a binary sequence.[766]

We called the contracted sustainable form of such works "absolute form" (encoded) and the spatial and ephemeral form of its expansion "relative form" as it varies with each new expansion of the code.

Since the very end of the twentieth century the principle of contraction / expansion develops significantly with digital works for which the coded form now consists of a digital file that is to be deployed as a relative and ephemeral form in a physical place: the printing of a wallpaper photograph or a video projection that takes into account the specificities of the place of destination. In this, these works pursue what many artists have set up in the 1960s and in different ways.

2. Partial ubiquity and full ubiquity of the work

Smithson had grasped with insight how this type of work would enable to leave the problems of the uniqueness of the work and the artist's sacralization. It seems that cybernetics — more than cinema, photography and printing before them — make clear a type of work that can be developed according to a principle of ubiquity. Smithson does not speak directly of "ubiquity" but he develops the principle with his work in the form of newspaper articles and films and he would quite likely have focused on its theoretical issues since he tended to work always more with film and video. To find ways to rethink the role of art in society was a very important challenge to him. Indeed, the release of an unlimited number of art works would require to redefine its function within society as it should lead to a collapse of the sacredness of modernist autonomy.

The redefinition of the artwork that Smithson and some of his contemporaries saw in the 1960s remains as potential. It is not realized yet and hopefully this change will occur over the long term. Today the traditional uniqueness tends to be applied to digital works with limited editions but everyone knows that such limitations are obsolete. How can one rethink the status of the artwork, its function, its place within society? The necessary condition is to accept this ubiquity by first accepting the re-

---

[766] It was shown in the exhibition *Primary Structures* at the Jewish Museum in 1966.

254

characterization of what "materiality" means in order to then be able to think the possibilities of an "unlimited" work of art.

The Spiral Jetty is a "multimedia" work that is both earthwork sculpture, film, and text. We can say that it works with "partial ubiquity": two-thirds of the work, the film and the text, comply with the principle of ubiquity while the sculpture remains a traditional type of work. Probably Smithson would have continued to think partial ubiquity works as well as a way to develop "full ubiquity" works such as his articles designed for newspapers.

During the last year of his life, Smithson drew another way to rethink the role of art and one might think that it would have worked with the idea of partial ubiquity. This way is the land reclamation projects with which he says that art must confront the problems of industry by thinking in plastic and aesthetic terms the degradation issues related to the use of energy and products. He proposed several land reclamation projects aiming at thinking in artistic terms the problems of disused mining sites. His project for *Island of Broken Glass* in 1970 announces these land reclamation projects. In this project he proposed the recycling of industrial glass by pouring it on a small island off Vancouver and let it deteriorate as an emerald losing little by little its shine so that it would become sand again over the long term. He understood that in dealing plastically and aesthetically with the problems of the industry, the artist would have an essential role, the same role as the artist who in the past worked on religious themes. This place would be more interesting and rewarding for the artist than the place of the sacralized artist who is allowed to do everything, the result of an artificial construction whose purpose is primarily commercial speculation. Regarding these ambitions, we understand all the better the qualification of Smithson's work as "corners of hell" by his friend Carl Andre, corners of hell in the sense that his work focuses on problems repressed by our societies, voluntarily left hidden and obscure. He was indeed a "magician" said again Carl Andre because he tried with his works and projects to reverse this situation.

III- Future of Robert Smithson's thinking on cybernetics?

1- Cybernetics in plastic terms

Thanks to the analysis carried out on Smithson's writings, this dissertation develops an understanding of Smithson's work as a visual work that thinks the problems of cybernetics in aesthetic terms. It is through this analysis of his work that in parallel I understood the cybernetic moment of the art of the 1960s. I had not been able to fully grasp the importance of this issue through the thesis that preceded this PhD work and in which I analyzed the use of text in the work of some plastic artists of the time. Looking with extreme consideration at the work of an artist whose problems echo some of those at work in my own practice has enabled me to understand in depth some of the issues of my own practice, the first being the need to work with the text as a plastic material. In this analysis, I needed to do away with too easy explanations and leave aside categorizations such as "minimalism", "conceptualism", "land art". Digging these problems was made possible thanks to a work in Smithson's archives that consisted primarily in careful analyzes of his notebooks, of the various versions of his unpublished and published texts and plastic works.

2- Feedback from cybernetics to artistic psychology

Following the development of Smithson's thought was an experience that exceeded in many ways this dissertation work. By analyzing Smithson's work, you grasp that the elaborated analogies he builds and which prove sometimes dizzying as with *The Spiral Jetty* are not all "calculated". That is what makes them fascinating works. Through the reading of Anton Ehrenzweig's study on the perception process (*The hidden order of art*) Smithson understands that this process consists in a feedback movement of information on itself, thus echoing the computer feedback. Conscious perception is a "contracted" perception that is built by repressing the unconscious "dispersed" perception. By asserting the place of unconscious perception as a matrix, Smithson makes the logic of any system collapse.

The feedback movement between the two perceptions is an oscillation between conscious and unconscious where everything is unknown and "uncertain" as he notes:

an in-between dimension where intuition is at work. It is a kind of very thin membrane from where everything can overbalance towards the best as well as the worse. Smithson expresses it with humor in his notebooks: "My art is incomprehensible to me, I wish somebody would tell me what it is all about. It seems that the most sublime thoughts about art are little better than the worst." [767] In this balance, each work guided by the unconscious perception is born out of a series of risk-taking and on a background of anguish: "my structures (…) I really don't know what they are, that's why I do them."[768] Smithson builds his work with the balance of tensions of perception and he then traces connections to other fields through relations of analogy. In that he leaves the problems of modernism with its self-referential issues and he also distinguishes his work from the plastics approaches of some of his contemporaries that, working on perceptual processes by using the principle of feedback in particular in video installations, in fact remain on the modernist self-referential problems. Smithson always brings the viewer to other fields than the pure experience of her/his perceptual faculties, confronting various dimensions and materials. The beauty and strength of his work lies in the way with which he realizes this relativistic approach. Everything is confronted with its opposite, making understand how much each construction, whether systematic or not, rests on fragile foundations.

3- Smithson and art history: deconstruction / reconstruction

It was essential to grasp how Smithson looks at the work of other artists, contemporary artists as well as artists of the past, posing with humor Parmigianino, the conceptual mannerist, against Rembrandt, the expressionist in order to reveal contemporary problems, or characterizing with Peter Hutchinson an "abstract mannerism" that aims to reveal the flaws of modernism. When looking at the works of artists of the past, Smithson always works with singular analogies in order to reveal the contemporary problems. Abstract Mannerism is presented as a counter cultural underground attitude that aims at destabilizing the modernist principles. The way he "saves" Michelangelo from the reading of the modernist critique is remarkable: in a

---

[767] In Notebook, Robert Smithson and Nancy Holt Papers, Archives of American Art, reel 3834.
[768] In Notebook, Robert Smithson and Nancy Holt Papers, Archives of American Art, reel 3834.

single gesture he "recovers" him so to speak and builds his artistic genealogy, showing how what he calls the "great art" builds from an intuitive, intellectual and speculative dimension in complete opposition to the greenbergian "eyesight alone" or the idea of "high art" and "low art".

In looking at art works of the past, Smithson goes on almost unexplored terrains in the field of art history: this represents a huge opening. For example he finds a way to characterize the plasticity of humor through ages, seeing it as the artistic memory *par excellence:* a memory that is to be grasped intuitively. It is thus a plasticity without "form". In a way comparable to Ad Reinhardt, Smithson's very good knowledge of art history enables him to rethink it, leaving aside the problems of style and categories in order to focus on deeper structural problems. This knowledge enables him to build arguments both very strong — in particular he often bases on the arguments of several art historians of the school of Hamburg — and relativistic: nothing is fixed, something can always turn into its opposite, art history is always between construction and deconstruction.

4- Thinking some nonsites of the digital age?

In the course of these four years spent analyzing Smithson's work, my thoughts as an artist have evolved. In the background I kept thinking in plastic terms. Obviously, I will try to work plastically from the reflections I have carried on Smithson's work. Before I engaged in this doctoral work, I had the desire to develop a work with the material that is the website in tending to think its projection in a place and think how with this form we could create an oscillation between the psychic projection of the viewer in the website and the awareness of her/his physical position in the room, using the same feedback principle at work with Smithson's nonsite. In the end of the doctoral work, I see that working with this material would enable to pursue the idea of nonsite. Indeed the form of the website pursues differently the heteronomy principle of the Smithsonian nonsite since it can include text, still images and moving images, and all these elements have at the same time another form: a coded language, a sequence of 0 and 1. An artwork taking the form of website can be a nonsite under the condition that it follows one of the key principles of the nonsite: the change of scale.

It should also consider ways to bring down the type of systematization that this form could induce.

Another way to pursue Smithson's thinking and which could be combined with this idea of internet nonsite, may be to work with some 3D design software and find ways to lead to a collapse its systematics. Such software would certainly have fascinated Smithson as the passage from one dimension to another is a key element of his plastic approach.

I will be able to think the terms of such types of works by manipulating these materials again. Trying these things, I will have to know how to distance from Smithson's work in order both to respect it and not to fall into formalism. Like Smithson, I know that only a thin and fragile membrane separates the best art from the worst.

BIBLIOGRAPHY

I- Unpublished texts from Robert Smithson's archives:
Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution

Notebooks, reel 3834.
A note on the dialectic of site and nonsite, reel 3834.
Cayuga Salt Mine Project, John Weber Gallery release, reel 3834.
Correspondence with George Lester, reel 5538.
Correspondence with Nancy Holt, reel 3832.
Draft for *The Establishment* (1968), reel 3834.
Draft for *Pointless vanishing point*, reel 3834.
Draft for *Donald Judd*, reel 3834.
Economics of the self in nature and art, reel 3834.
Ecology and the incest taboo, reel 3834.
Fiction and Language in Art, reel 3834.
From a paradigm treatise on visible language, reel 3834.
Interview with two students, 1973, AAA, Washington D.C.
Island of Broken Glass, reel 3835.
Letter to Enno Develing, undated, reel 3833.
Notes from a paradigmatic treatise on visible language, reel 3834.
Pathopolis (the great pollution hysteria), reel 3834.
Space the mirror of time, reel 3834.
Sonsbeeck Unlimited, art as ongoing development, reel 3834.
The artist as site-seer or coded environment, reel 3834.
The Critoid Menace, reel 3834.
Two attitudes towards the city, reel 3884.

II- Art history

1- On Robert Smithson
      a- Books
HOBBS, Robert, *Robert Smithson: Sculpture*, Cornell University Press, 1981.
REYNOLDS, Ann, *Robert Smithson: Learning from New Jersey and Elsewhere*, MIP Press, 2003.
ROBERTS, Jennifer L., *Mirror-Travels: Robert Smithson and History*, Yale University Press, 2004.
URSPRUNG, Philip, *Allan Kaprow, Robert Smithson, and the Limits to Art*, University of California Press, 2013.

      b- Articles
DRYANSKY, Larisa, *La carte cristalline*, in Cahiers du Mnam, hiver 2009-2010.
DRYANSKY, Larisa, *Paléofuturisme : Robert Smithson entre préhistoire et posthistoire*, in Cahiers du Mnam, hiver 2013/2014.
DRYANSKY, Larisa, *Time Travelers* (lecture), Centre Pompidou, 9 mars 2012, on
https://www.centrepompidou.fr/cpv/resource/cXG7Gj/rdLkoAx
LEE, Pamela M., *Ultramoderne: or how George Kubler stole the time in the sixties art,* in *Chronophobia — On time in the Arts of the 1960's*, MIT Press, 2004.
NORVELL, Patricia, *Interview with Robert Smithson*, *June 20, 1969*, in *Recording Conceptual Art*, edited by Alexander Alberro and Patricia Norvell, University of California Press, 2001.

      c- Catalogues and edited volumes

ROBERT SMITHSON, edited by Eugenia Tsai and Cornelia Butler, The Museum of Contemporary Art, Los Angeles, 2004.
ROBERT SMITHSON: LE PAYSAGE ENTROPIQUE (1960-1973), RMN, 1994.
ROBERT SMITHSON: SPIRAL JETTY, TRUE FICTIONS, FALSE REALITIES, Dia Art Foundation, 2005.
ROBERT SMITHSON: ZEICHNUNGEN AUS DEM NACHLASS, Münster, Westfälisches Landesmuseum für Kunst und Kulturgeschichte, 1989.

2- Books
ALBERRO, Alexander, *Conceptual art and the politics of publicity*, MIT Press, 2004.
ARASSE, Daniel, *Perspective et annonciation, Histoires de peinture,* éditions Denoël, 2004, réédité par Folio essais Gallimard.
BRESHEARS, Jason, *The Lost Scriptures of Giza*, *Enochian Mysteries of the World's Oldest Texts,* Book Tree, 2006.
CRARY, Jonathan, *Techniques of the Observer: on Vision and Modernity in the Nineteenth Century*, MIT Press, 1992.
GRAY, Camilla, *The Great Experiment: Russian Art 1863-1922*, Thames and Hudson, 1962-1986.
GREENBERG, Clement, *Art and Culture*, Beacon Press, 1961-1989.
GREENBERG, Clement, *Art et Culture*, Macula, 1988.
GREENBERG, Clement, *The collected essays and criticism*, vol. 4, edited by John O'Brian, Chicago University Press, 1995.
KAYSER, Wolfgang, *The Grotesque in art and literature*, Mc Graw-Hill Book Company, Inc. New York, 1966.
KUBLER, George, *The Shape of Time, Remarks on the History of Things*, Yale University Press, 1962-1970 (sixth printing).
KUBLER, George, *Formes du temps*, éditions champ libre, 1973.
LEE, Pamela M., *Chronophobia — On time in the Arts of the 1960's*, MIT Press, 2004.
LIPPARD, Lucy, *Six Years, The Dematerialization of the Art Object from 1966 to 1972*, University of California Press, 1973, 2001.
O'DOHERTY, Brian, *Inside the White Cube: the Ideology of the Gallery Space*, The Lapis Press, San Francisco, 1986.
O'DOHERTY, Brian, *White Cube : l'espace de la galerie et son idéologie*, jrp/Ringier, 2008.
OSBORNE, Peter, *Anywhere or not at All: Philosophy of contemporary art*, Verso, 2013.
PANOFSKY, Erwin, *Three essays on style*, edited by Irving Laving, with a memoir by William S. Heckscher, MIT Press, 1997.
PANOFSKY, Erwin, *Trois essais sur le style*, Gallimard, 1996.
PANOFSKY, Erwin, *Studies in Iconology: Humanistic Themes in the Art of the Renaissance* (1939), Icon Editions, Westview Press, 1972.
PANOFSKY, Erwin, *Tomb Sculpture: its changing Aspects from Ancient Egypt to Bernini*, Abrams, 1992.
PANOFSKY, Erwin, *La sculpture funéraire de l'Egypte ancienne au Bernin*, Flammarion, 1992.
TIBERGHIEN, Gilles A., *Land Art*, Carré, 1996-2012.
SCHWARTZ, Arturo, *Marcel Duchamp, la mariée mise à nu par les célibataires, même*, éditions George Fall, 1974.
WORRINGER, Wilhelm, *Abstraction et Einfühlung*, Klincksieck, coll. *l'esprit et les formes*, 2003.
YATES, Frances, *The Art of Memory*, Routledge, 1966-1999.
YATES, Frances, *L'art de la mémoire*, traduit de l'anglais par Daniel Arasse, Gallimard, 1975.

3- Articles
ALLAN, Kenneth R., *Barnett Newman's The Wild: Painting as spatial intervention*, October 143, Winter 2013.
ARASSE, Daniel, *Du lieu au site—les zones de l'art aujourd'hui*, revue d'esthétique n°39, 2001.

BOIS, Yves-Alain, *Here to there and back: Barnett Newman in retrospect, Artforum,* March 2002.

BOIS, Yves-Alain, *"Here I am": on Newman's use of laterality*, on http://www.egs.edu/faculty/yve-alain-bois/articles/here-i-am-on-newmans-use-of-laterality/

BUCHLOH, Benjamin, *Process sculpture and film in the work of Richard Serra*, in *Richard Serra*, ed by Hal Foster, Gordon Hughes, The MIT Press, 2000.

CORNWELL, Regina, *Paul Sharits: Illusion and Object*, *Artforum*. X, September 1971.

DE DUVE, Thierry, *Ex Situ*, in Cahiers du Musée d'Art Moderne, n°27, printemps 1978.

FRIED, Michael, *Art and Objecthood, Artforum*, June 1967.

GREENBERG, Clement, *The factor of surprise*, in *Homemade Esthetic Observations on Art*, Oxford University Press, 1999.

KRAUSS, Rosalind, *The Im/pulse to see*, in *Vision and Visuality*, ed. Hal Foster, Bay Press and Dia Art Foundation, 1988.

POTTS, Alex, *Dan Flavin "in… cool white and infected with a blank magic"*, in *Dan Flavin: New Light*, ed. by Jeffrey Weiss, Yale University Press, 2006.

RECHT, Roland, *Histoire de l'art européen médiéval et moderne*, on http://www.college-de-france.fr/media/roland-recht/UPL66349_Recht.pdf

STEMMRICH, Gregor, *Piet Mondian, Barnett Newman, Dan Flavin: Painting as Medium and Model*, in *Piet Mondian Barnett Newman Dan Flavin*, Hatje Cantz, 2014.

MEYER, James, *The functional site; the transformation of site specificity*, in *In space site intervention: situating installation art*, Ed Erika Sutherburg, University of Minnesota Press, 2000.

4- Catalogues and edited volumes

ART ET SCIENCE-FICTION — LA BALLARD CONNECTION, édité par Valérie Mavridorakis, Les presses du réel, 2011.

ART CONCEPTUEL, UNE ENTOLOGIE, éditions MIX, 2008.

CARL ANDRE, Cat. Exh. Guggenheim Museum, ed. by Diane Waldman, 1970.

DAN FLAVIN: The Architecture Of Light, Deutsche Guggenheim Berlin, 1999.

DAN FLAVIN, Une rétrospective, MAMVP, 2006.

FORMLESS A USER'S GUIDE, Yves-Alain Bois and Rosalind Krauss, Zone Books, New York, 1997.

PAUL SHARITS: Dream Displacement And Other Projects, Exh. Cat., Albright-Knox Gallery, Buffalo, New York, 1976.

THE RESPONSIVE EYE, The Museum of Modern Art, 1965.

READY TO SHOOT: Fernsehgalerie Gerry Schum/videogalerie Schum, Kunsthalle Düsseldorf, Snoeck, 2004.

RICHARD SERRA, ed. by Hal Foster with Gordon Hughes, The MIT Press, 2000.

INSTITUTIONAL CRITIQUE: an anthology of artist's writings, ed. by Alexander Alberro and Blake Stimson, The MIT Press, 2009.

III- Artists writings and interviews

1- Books

ANDRE, Carl, *Cuts*, *texts 1959-2004*, edited with an introduction by James Meyer, The MIT Press, 2005.

BOCHNER, Mel, *Solar System and Restrooms: writings and Interviews 1967-2007*, MIT Press, 2008.

DUCHAMP, Marcel, *Duchamp du signe*, Champs Flammarion, 1994.

DUCHAMP, Marcel, *Notes*, Flammarion, Champs art, 1999.

DUCHAMP, Marcel, *The Essential writings of Marcel Duchamp*, ed. by Michel Sanouillet and Elmer Peterson, Thames and Hudson, 1975.

DUCHAMP, Marcel, *To Change Name, simply,* an interview with Guy Viau, on Canadian Radio Television, on July 17, 1960. On http://www.toutfait.com/ (the Marcel Duchamp studies online journal)

HUTCHINSON, Peter, *Dissolving Clouds: Writings of Peter Hutchinson*, Provincetown Arts Press, 1994.

HUTCHINSON, Peter, *Dissoudre les nuages*, traduction de l'anglais par Alexis Vaillant revue et corrigée par Ambroise Tièche, Presses du MAMCO, 2014.

MICHEL-ANGE, *Carteggio/Correspondance*, présentation et notes d'Adelin Charles Fiorato, Les Belles Lettres, 2011.

MORRIS, Robert, *Continuous Projects Altered Daily: The Writings of Robert Morris*, MIT Press, 1995.

NEWMAN, Barnett, *Selected Writings and Interviews*, ed. by John O'Neil, University of California Press, 1990-1992.

REINHARDT, Ad, *Art as Art*, edited by Barbara Rose, University of California Press, 1991.

SERRA, *Richard, Ecrits et entretiens*, 1970-1989, Daniel Lelong éditeur, 1990.

SERRA, Richard, *Interviews, etc. 1970-1980,* The Hudson River Museum, 1980.

SERRA, Richard, *Writings and Interviews,* University of Chicago Press, 1994.

SMITHSON, Robert, *The Collected Writings of Robert Smithson*, edited by Jack Flam, University of California Press, 1996.

WEINER, Lawrence, *Having Been Said: Lawrence Weiner Writings and Interviews,* edited by Gerti Fietzek & Gregor Stemmrich, Hatje Cantz, 2004.

2- Articles

BARRY, Robert, *Interview with Ursula Meyer*, October 12th, 1969, on www.ubu.com

BARRY, Robert, *Interview with Catherine Spaeth*, March 21st, 2009, on http://www.catherinespaeth.com/blog/)

FLAVIN, Dan, *in daylight or cool white, Artforum*, December 1965.

JUDD, Donald, *Specific Objects* (1964), in Art Yearbook 8, 1965.

MORRIS, Robert, *Autour du problème corps/esprit / Around the mind/body problem*, in *Art Press* 193, juillet 1994.

SHARITS, Paul, *Interview with Gérard Courant*, September 1981, on http://www.gerardcourant.com/index.php?t=ecrits&e=149

IV- History of cinema

BAZIN, André, *Ontologie de l'image photographique*, in *Qu'est-ce que le cinéma*, éditions du Cerf, 1975.

BAZIN, André, *The ontology of the photographic image*, in *What is cinema? Essays selected and translated by Hugh Gray*, Vol. 1, University of California Press, 1967.

YOUNGBLOOD, Gene, *Expanded Cinema*, P. Dutton & Co., Inc, New York, 1970

PETER KUBELKA, Paris Expérimental, édité par Christian Lebras, 1990.

V - Philosophy, aesthetics, linguistics

BARTHES, Roland, *Œuvres complètes II,* Seuil 1994, 2002.

BAUDELAIRE, Charles, *Ecrits sur l'art,* Le livre de Poche, Librairie Générale Française, 1999.

BAUDELAIRE, Charles, *The Mirror of Art, Doubleday Anchor Book, 1944*.

BENVENISTE, Emile, *Le vocabulaire des institutions indo-européennes*, tome 2, Editions de Minuit, 1969.

FOUCAULT, Michel, *Les mots et les choses,* Gallimard, 1966.

FOUCAULT, Michel, *The Order of Things*, Pantheon Books, 1970.

JANKELEVITCH, Vladimir, *L'angoisse* (*On Anxiety*), on https://www.youtube.com/watch?v=U38VN_avli8 (from about 19:05 min to 20:51 min)

MARCUSE, Herbert, *One-dimensional Man: studies in the Ideology of Advanced Industrial Society*, Beacon Press, 1964.

MARX, Karl, *Manuscrit de 1844* : *économie politique et philosophie*, Paris, Les éditions sociales, 1975.

MARX, Karl, *Le Capital*, Livre I, section III, chapitre 7: production de valeur d'usage et production de la plus-value, on https://www.marxists.org/francais/marx/works/1867/Capital-I/kmcapI-7.htm

MARX, Karl, *The Capital*, Book I, section III, *Chapter 7: the labour process and the process of producing surplus*-value, on http://www.marxists.org/archive/marx/works/1867-c1/ch07.htm

PERRET, Catherine, *Les porteurs d'ombre — mimésis et modernité*, éditions Belin, 2001.

RICŒUR, Paul, *La métaphore vive*, Seuil, 1975.

RICŒUR, Paul, *The Rule of Metaphor*: *the creation of meaning in language*, translated by Robert Czerny with Kathleen McLaughlin and John Costello, SJ, Routledge classics, 2004.

SACHOT, Maurice, *religio/superstitio : historique d'une subversion et d'un retournement*, in *Revue de l'histoire des religions*, tome 208 n°4, 1991.

SCHILLING, Robert, *L'originalité du vocabulaire religieux latin*, in *Rites, cultes, dieux de Rome*, Paris, 1979.

TEILHARD DE CHARDIN, Pierre, *Le phénomène humain*, Seuil, 1956

TEILHARD DE CHARDIN, Pierre, *The Phenomenon of Man*, Harper Perennial Modern Thought, 1976.

VI- Psychology, psychoanalysis

EHRENZWEIG, Anton, *L'ordre caché de l'art : essai sur la psychologie de l'imagination*, traduit de l'anglais par Francine Lacoue-Labarthe et Claire Nancy, Gallimard, 1974.

EHRENZWEIG, Anton, *The Hidden Order of Art*, University of California Press, 1967.

ROSOLATO, Guy, *Technique d'analyse picturale*, in *Essais sur le symbolique*, Gallimard, 1969.

SYPHER, Wylie, *Loss of the Self in Modern Literature and Art,* Random House, 1962.

VII- Literature

BORGES, Jorge Luis, L'Aleph, Gallimard, 1967

BORGES, Jorge Luis, *Labyrinths: selected stories and other writings, 1962*.

ELIOT, T.S., *Burnt Norton, Four Quartets,* Mariner Books, 1968.

HULME, T. E., *Humanism and the religious attitude*, in *Speculations* (1924), Routledge & Kegan Paul Ldt, 1960.

LEVI-STRAUSS, Claude, *Tristes tropiques (1955)*, Plon, coll. *Terres humaines*, 1984.

LEVI-STRAUSS, Claude, *Tristes Tropiques* (1955), translated by John Russell, Hutchinson & co., 1961.

NABOKOV, Vladimir, *The stories of Vladimir Nabokov*, Vintage Books, 2006.

NOVALIS, *Die Christenheit oder Europa,* Reclam Verlag, 1986.

POE, Edgar A., *Some words with a mummy*, in *Edgar Allan Poe's annotated Short Stories*, ed. and introduced by Andrew Barger, Bottletree Books, 2008.

POE, Edgar, *Petite discussion avec une momie,* in *Nouvelles histoires extraordinaires*, Le livre de poche, Librairie générale française, 1972.

ROBBE-GRILLET, Alain, *Nature, Humanisme, Tragédie*, in *Pour un nouveau roman*, Les éditions de Minuit, 1963.

ROBBE-GRILLET, Alain, *Nature Humanism Tragedy,* in *For a new novel*, Northwestern University Press, 1989.

WELLS, H.G., *The Time Machine*, on http://archive.org/details/timemacliineinvenOOwell

WELLS, H.G., *La machine à explorer le temps,* traduit de l'anglais par Henry D. Davray, Gallimard, 1972.

VIII- Science, media theory, cybernetics

BUNN, Charles, *Crystals: their Roles in Nature and in Science*, Academic Paperback, 1966.
GARDNER, Martin, *The ambidextrous universe: mirror asymmetry and time-reversed worlds*, Basic Books, 1964.
DUNNE, John William, *The Serial Universe*, Faber and Faber, 1934.
LECOURT, Dominique, *Dictionnaire d'histoire et de philosophie des sciences*, PUF, 1999.
MCLUHAN, Marshall, *Understanding Media: The Extensions of Man*, The MIT Press, 1964-1994.
MCLUHAN, Marshall, *Pour comprendre les médias: les prolongements technologiques de l'homme*, traduit de l'anglais par Jean Paré, Mame: Seuil, 2013.
MUMFORD, Lewis, *Technics and Civilization*, Harcourt, Brace & Cie Inc., 1934.
PIERCE, J.R., *Symbols, Signs and Noise: The Nature and Process of Communicatio*n, Harpers and Brothers, 1961.
POINCARE, Henri, *La science et l'hypothèse*, Ebooks libres et gratuits, 2011.
WIENER, Norbert, *The Human Use of Human Beings: Cybernetics and Society*, Doubleday Anchor Books, 1954.

LIST OF ILLUSTRATIONS

- Fig. 1. 23: Marcel Duchamp, *Rotary Glass Plate* (*Rotative Plaque de verre*), 1920, 120 x 184,1 cm and five glass plate of 99 x 14 cm, Yale Center for British Art, New Haven, CT, USA.

- Fig. 1. 24: Marcel Duchamp, *Anemic Cinema*, 1925

- Fig. 1. 25: Marcel Duchamp, *Rotoreliefs,* 1935

- Fig. 1. 26: Luis Buñuel and Salvador Dalì, *Un chien andalou*, 1929

- Fig. 1. 27: Ad Reinhardt, *Abstract Painting,* in *How to Look at Ar*t, in *Arts & Architecture*, January 1947

- Fig. 1. 28: Exhibition of Ad Reinhardt's *Black Painting*s at the David Zwirner Gallery, New York, December 2013

Chapter 3

- Fig. 1. 29: Dan Flavin, *the diagonal of May 25, 1963 (to Constantin Brancusi)*, 1963, yellow fluorescent light, 244 cm long on the diagonal, Dia Art Foundation, Photo: Billy Jim, New York, © Stephen Flavin/Artists Rights Society (ARS), New York

- Fig. 1. 30: Robert Smithson, *Malibu*, 1964, colored plastic, 61 x 45,7 cm

- Fig. 1. 31: Dan Flavin, *the nominal three (to William of Ockham)*, 1963

- Fig. 1. 32: Dan Flavin, *icon I (the heart), to the light of Sean McGovern which blesses everyone*, 1961-1962

- Fig. 1. 33: Dan Flavin, *icon II (the mystery) (to John Reeves)*, 1961

- Fig. 1. 34: Dan Flavin, *icon V (Coran's Broadway Flesh), 1962,* National Gallery of Art, Washington D.C.

- Fig. 1. 35: Dan Flavin, *Roses*, 1962-1966, 21,5 cm high x 14 cm diameter, collection of the MOMA, New York

- Fig. 1. 36: Vladimir Tatlin, *Corner relief,* 1914

- Fig. 1. 37: Dan Flavin, *untitled (to Donna) 5a*, 1971, Collection of the Centre Pompidou, National Museum of Modern Art, Paris

- Fig. 1. 38: Dan Flavin, *untitled (to Janie Lee) one*, 1971, blue, rose, yellow and green fluorescent tubes in a corner, 244 cm large

- Fig. 1. 39: Vladimir Tatlin, Mock-up for the *Monument for the Third International,* 1920

- Fig. 1. 40: Dan Flavin, *"monument" 1 for V. Tatlin*, 1964, Collection of the MOMA, New York

- Fig. 1. 41: Dan Flavin, *"monuments"* for V. Tatlin series, various dates (1964-1981), Dia Beacon, Dia Art Foundation, photo: Bill Jacobson

- Fig. 1. 42: Donald Judd, *Untitled, March 8 1965,* 1965 (*Pink Plexiglas Box*), red fluorescent plexiglas, stainless steel, Judd Foundation, Licensed by VAGA, New York, Courtesy of David Zwirner, New York/London

- Fig. 1. 43: Dan Flavin, *green crossing green (to Mondrian who lacked green)*, 1966, green fluorescent light, Solomon R. Guggenheim Museum, New York, Panza Collection, 1991, photo: David Heald

- Fig. 1. 44: Robert Smithson, *Quick millions*, 1965, plexiglas and corrugated acrylic, James Cohan Gallery, New York.

- Fig. 1. 45: Robert Smithson, *Map of Broken Glass (Atlantis),* 1969, collage, Photostat, map, graphite

on paper, 41,8 x 35,5 cm, Dia Art Foundation; Gift of Nancy Holt

- Fig. 1. 46: Robert Smithson, *Map of Broken Glass (Atlantis)*, 1969, Dia Art Foundation; Partial Gift, Lannan Foundation, 2013, photo: Bill Jacobson

- Fig. 1. 47: Robert Smithson, *Asphalt Rundow*, 1969, Rome

- Fig. 1. 48: Robert Smithson, Sketch for *Cement flow*, 1969, pencil, ink, crayon and tape on paper, 20,32 x 25,40 cm

- Fig. 1. 49: Robert Smithson, *Glue Pour*, 1969,Vancouver, Canada

- Fig. 1. 50: Robert Smithson, *Partially Buried Woodshed*, January 1970, one woodshed and twenty truck loads of earth

Chapter 4

- Fig. 1. 51: Robert Smithson, *St. John in the Desert*, c. 1961-1963, collage, private collection, 61 x 45,72 cm

- Fig. 1. 52: Robert Morris, *Untitled (Ring with Light*), 1965-1969, 243, 8 cm diameter

- Fig. 1. 53: Robert Morris, *Observatory,* flatlands of Ijmuiden, 1971, earth, timber, granite blocks, steel, 71 m diameter

- Fig. 1. 54: Left side of the ENIAC in Philadelphie, U. S. Army Photo, archives of the ARL Technical Library

- Fig. 1. 55: ENIAC in Philadelphia, Two women wiring the right side of the ENIAC with a new program, in the "pre- von Neumann" days, U. S. Army Photo from the archives of the ARL Technical Library. Standing: Marlyn Wescoff Crouching: Ruth Lichterman

PART TWO

Chapter 1

- Fig. 2. 1: Barnett Newman, *Onement I*, 1945, 69 x 41 cm, Collection of the MOMA

- Fig. 2. 2: Barnett Newman, *Here I,* 1950-1962, 272 x 69 x 72 cm

- Fig. 2. 3: *Not There-Here,* 1962, oil on canvas and casein, 198 x 89,4 cm

- Fig. 2. 4: *Right Here*, 1954, oil on muslin, 127,5 x 89,5 cm

- Fig. 2. 5: Barnett Newman, *Abraham,* 1949, oil on canvas, 21,2 x 87,7 cm

- Fig. 2. 6: Barnett Newman and Dorothy Miller in front of *Cathedra,* 1958

- Fig. 2. 7: The Wild, 1950, 243 x 4,1 x 4,1 cm, Collection of MOMA

- Fig. 2. 8: *The Wild,* Barnett Newman and Betty Parson, 1951, photograph by Hans Namuth

- Fig. 2. 9: Richard Serra, *Delineator,* 1974-1975, two rectangular steel plates of 3 x 7,90 cm, MOMA (photograph of MOMA)

- Fig. 2. 10: Michelangelo, Staircase of the Laurentian Library, Florence, 1519-1559

- Fig. 2. 11: Carl Andre, *5x 20 Altstadt Rectangle*, 1967, Konrad Fischer Galerie, Düsseldorf

- Fig. 2. 12: Carl Andre, *Spill (scatter piece)*, 1966, 800 small plastic cubes, canvas bags

- Fig. 2. 13: Richard Serra, *Scatter piece*, 1967, latex rubber bands, Dia Art Foundation

- Fig. 2. 14: Robert Morris, *Scatter piece*, 1968, Castelli Warehouse

- Fig. 2. 15: Robert Morris, *Scatter piece*, 1968-2010, Castelli Gallery, felt, steel, lead, zinc, copper, aluminum, brass, variable dimensions

displacements, Archives of Ursula Wevers and Gerry Schum, in Cat. Exh *Ready to Shoot, Fernsehgalerie Gerry Schum / videogalerie Schum*

- Fig. 2. 49 and Fig. 2. 50: Invitation postcards to the *LAND ART* exhibition, Robert Smithson and Nancy Holt Papers, Archives of American Art, Washington D. C.

Chapter 3

- Fig. 2. 51: Robert Smithson, *Notebook,* Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution

- Fig. 2. 52: Robert Smithson, *Nonsite — Monolake*, Grey painted steel/cinder, Map, 21, 5 x 101,6 x 101,6 cm

- Fig. 2. 53: Robert Smithson, *Double Nonsite — California & Nevad*a, Exhibition *Nonsite*, Dwan Gallery, 1968, white painted steel/lava & obsidian map, 31,75 x 180,34 x 180,34 cm, Archives of the Dwan Gallery, Archives of American Art, Smithsonian Institution

- Fig. 2. 54: Robert Smithson, General view of the exhibition *Nonsite*, Dwan Gallery, February 1969, In the foreground: *Nonsite — site Uncertain*, Archives of the Dwan Gallery, Archives of American Art, Smithsonian Institution

- Fig. 2. 55: Robert Smithson, *Gravel Mirrors with Cracks and Dus*t (in the foreground), 1969, Exhibition *Nonsite*, Dwan Gallery, February 1969, twelve square mirrors, gravel

- Fig. 2. 56: Robert Smithson, *Gravel Mirrors with Cracks and Dust*, 1969, Dia Art Foundation

- Fig. 2. 57: Robert Smithson, *Nonsite (Essen soil and Mirrors)*, 1969, twelve mirrors, soil, each mirror: 91,44 x 91,44 cm, overall: 91,44 x 182,88 x 182,88 cm, San Francisco Museum of Modern Art

- Fig. 2. 58: *A square table has planes of symmetry (m for mirror), as well as a fourfold rotation axis (It also has diagonal planes of symmetry.),* Schema from Charles Bunn, *Crystals: their role in Nature and in Science*, Academic Press Inc., 1964, p. 89.

- Fig. 2. 59: Robert Smithson, *Untitled (Map on Mirror-Passaic, New Jersey)*, 1967, cut map on seven mirrors, 3,81 x 35,56 x 35,56 cm, Collection of the Estate of Robert Smithson

- Fig. 2. 60: Robert Smithson, *Proposal for White Museum, Cornell University,* 1968

- Fig. 2. 61: Robert Smithson, preparatory drawing for *Cayuga Salt Mine Project*

- Fig. 2. 62: Robert Smithson, *Ithaca Mirror Trail, Cayuga Salt Mine Project*

- Fig. 2. 63: Robert Smithson, Photograph of a piece of mirror in the Cayuga mine, Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution

- Fig. 2. 64 and Fig. 2. 65: General view of Robert Smithson's works at the *Earth Art* exhibition, White Museum, Cornell University, 1969, Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution

- Fig. 2. 66: Robert Smithson and *Eight Unit Piece* at *Earth Art* exhibition, 1969

- Fig. 2. 67: *Eight Unit Piece*, Collections of the Statens Museum for Kunst, Copenhagen, Denmark

- Fig. 2. 68: General view of Robert Smithson's works at Dia Beacon, Dia Art Foundation, Foreground: *Closed Mirror Square (Cayuga Salt Mine Project)*, 1969

- Fig. 2. 69: *Leaning Mirror,* 1969, 76,2 x 274,32 x 365,76 cm, Sand and two mirrors

- Fig. 2. 70: Robert Smithson during the installation of Cayuga Salt Mine Project, White Museum

- Fig. 2. 71: T. L. Dawes, Mining on the Comstock, 1876, Library of Congress

- Fig. 2. 72 and Fig. 2. 73: *Incidents of Mirror-Travel in the Yucatan*, in *Artforum*, September 1969

- Fig. 2. 74: *Mirror Displacements*, Yucatan, in *Incidents of Mirror-Travel in the Yucatan*, in *Artforum*, September 1969

- Fig. 2. 75: Robert Smithson, Drawing for *Earth Map, (White limestone), The Hypothetical Ice Cap of Gondwanaland*, 1969

- Fig. 2. 76: Robert Smithson, *Earth Map, (White limestone), The Hypothetical Ice Cap of Gondwanaland*, 1969

- Fig. 2. 77: Vladimir Tatlin, Mock-up for the *Monument for, the Third International*, 1920

- Fig. 2. 78: Ad Reinhardt, *How to look at a spiral*, 1946

- Fig. 2. 79 and Fig. 2. 80: Spirals, prospectus, Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution

- Fig. 2. 81: Robert Smithson, Project for museum and underground projection room for *Spiral Jetty,* 1971

- Fig. 2. 82: Spiral Jetty film stills, 1970, Black and white silver gelatin prints, three panels, each: 64 x 110,5 cm, The National Museum of Art, Architecture and Design, Oslo

- Fig. 2. 83: Press clipping showing a superposition of the Dallas-Fort Worth airport map on a map of Central Park, 1967, Robert Smithson and Nancy Holt Papers, Archives of American Art, Washington D. C.

- Fig. 2. 84: Robert Smithson, Press clipping with a photograph of Dallas-Fort Worth airport in construction, 1967, Robert Smithson and Nancy Holt Papers, Archives of American Art, Washington D. C.

- Fig. 2. 85: Central Park, 1885, looking northwest from park avenue possibly around 94th or 9th Street, in Robert Smithson, *Frederick Law Olmsted and the dialectical landscape*, in *Artforum,* February 1973

- Fig. 2. 86 and Fig. 2. 87: Robert Smithson, in *Frederick Law Olmsted and the dialectical landscape*, in *Artforum*, February 1973

Chapter 4

- Fig. 2. 88: Johannes Vermeer, *The Geographer*, 1668-1669, oil on canvas, 53 x 46,6 cm, Städelsches Kunstinstitut, Frankfurt

- Fig. 2. 89: Catalogue of the exhibition *10*, Dwan Gallery, 1966, with the photograph of *Alogon* by Robert Smithson, Dwan Gallery Archives, Archives of American Art, Smithsonian Institution

- Fig. 2. 90: Photograph of *Alogon* on the ground, Dwan Gallery Archives, Archives of American Art, Smithsonian Institution

- Fig. 2. 91: Announcement of Robert Smithson's personal exhibition at Dwan Gallery with the photograph or *Alogon*, in *Artforum*

- Fig. 2. 92: View of Robert Smithson's exhibition, Dwan Gallery, 1966 with *Alogon #2* and *Plunge*, Dwan Gallery Archives, Archives of American Art, Smithsonian Institution

- Fig. 2. 93: View of *Plunge* and *Alogon,* Robert Smithson's exhibition, Dwan Gallery, 1966, Dwan Gallery Archives, Archives of American Art, Smithsonian Institution

- Fig. 2. 94: Five-way portrait of Marcel Duchamp at the Broadway Photo Shop, New York, 1917,

Estate of Marcel Duchamp

- Fig. 2. 95: Robert Smithson, *Three Mirror Vortex*, 1965, Stainless steel and three mirrors, 88,9 x 71,1 x 71,1 cm, Metropolitan Museum of Art, New York

- Fig. 2. 96: Robert Smithson, *Four Sided Vortex,* 1967, Estate of Robert Smithson, James Cohan Gallery

- Fig. 2. 97: Robert Smithson, *A surd view for an afternoon*, 1970, Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution

- Fig. 2. 98 and Fig. 2. 99: Marcel Duchamp, Spheres sketches, in *Duchamp du signe*, champs Flammarion, 1994, p. 128 et p. 132.

- Fig. 2. 100: Photograph of the cupola of the Medici Chapel, in Rudolf Schott, *Michelangelo*, Abrams, NY, 1964

- Fig. 2. 101: Robert Smithson, Drawing of the cupola from the photograph of Schott's book, Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834

- Fig. 2. 102: Robert Smithson, *A nonsite (an indoor earthwork)*, 1968, Robert Smithson estate, James Cohan Gallery

PART THREE

Chapter 1

- Fig. 3. 1: Robert Smithson, *Shadows*, 1961

- Fig. 3. 2: Robert Smithson, *The Three Dancing Graces*, 1962

- Fig. 3. 3: Robert Smithson, *Drawings for Shrovetide*, The Minnesota Review, Winter 1963, Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3836

- Fig. 3. 4: Robert Smithson, *Drawings for Shrovetide*, The Minnesota Review, Winter 1963, Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3836

- Fig. 3. 5: Robert Grosvenor, *Tapanga,* 1965, 274.3 x 640.1 x 101.6 cm, painted wood with steel cable, work destroyed

- Fig. 3. 6: Robert Grosvenor, *Transoxiana,* 1965, painted wood, polyester and steel, 320 x 944,88 x 91,44 cm, published in *Entropy and the new monuments* by Robert Smithson, in *Artforum*, June 1966

- Fig. 3. 7: Dan Flavin, Installation view, 1964, published in *Entropy and the new monuments* by Robert Smithson, in *Artforum*, June 1966

- Fig. 3. 8: Robert Smithson, *Malibu,* 1964, colored plastic, 60,96 x 45,72 x 2,54 cm

- Fig. 3. 9: Robert Smithson, *Quick millions*, 1965, Plexiglas and corrugated acrylic, James Cohan Gallery, New York

- Fig. 3. 10: Robert Smithson, *Untitled (Second stage injector)*, 1963, mixed media and collage, 76,2 x 55,88 cm, James Cohan Gallery, New York

- Fig. 3. 11: Robert Smithson, *Untitled (Ben Franklin and Indian)*, 1963, mixed media with collage, 76,2 x 55,88 cm, James Cohan Gallery, New York

- Fig. 3. 12: Robert Smithson, *Untitled (Venus with lightning bolts)*, 1964 Pencil and crayon with collage, 76,2 x 55,88 cm, James Cohan Gallery, New York

- Fig. 3. 13: Robert Smithson, *Untitled (Zig zag star center and microscope with wings),* 1964, pencil

and crayon on paper, 55,88 x 71 cm, James Cohan Gallery, New York

- Fig. 3. 14: Robert Smithson, *Untitled (Psychedelic center pink),* 1964, pencil and crayon, 55,88 x 71 cm, James Cohan Gallery, New York

- Fig. 3. 15: Ad Reinhardt, cartoon, 1946

- Fig. 3. 16: Robert Smithson, *Map of Broken Glass (Atlantis)*, 1969, collage, photostat, map, graphite on paper, 41,8 x 35,5 cm, Dia Art Foundation; Gift of Nancy Holt

- Fig. 3. 17: Robert Smithson, Photograph of the island for *Island of Broken Glass* near Vancouver, Canada, Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithonian Institution

- Fig. 3. 18: Robert Smithson, *Map of Broken Glass (Atlantis)*, 1969, Dia Art Foundation; Partial Gift, Lannan Foundation, 2013, photo: Bill Jacobson

- Fig. 3. 19: Comic published in a Vancouver newspaper in 1970 *"actually, I'm an artist… do you happen to know of an island suitable for covering with broken glass?"* Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithonian Institution, reel 3835

- Fig. 3. 20: Robert Smithson, *Notebook*, Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834

- Fig. 3. 21: Robert Smithson, Letter to George Lester, September 22, 1961, in Robert Smithson and Nancy Holt Paper, Archives of American Art, Smithsonian Institution, reel 5538

- Fig. 3. 22: Robert Smithson, Drawing for *Enantiomorphic Chambers*, 1965, Museum of Modern Art, New York

- Fig. 3. 23: Spiral body, Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution

Chapter 2

- Fig. 3. 24: Carl Andre, *Equivalents*, 1966 at Tibor de Nagy Gallery

- Fig. 3. 25: Carl Andre, *Equivalent VIII*, 1966, 120 bricks, 12,8 x 68,5 x 229 cm., Collection of the Tate Modern, London

- Fig. 3. 26: Carl Andre, Drawing for *Cuts,* Archives of American Art, Smithsonian Institution

- Fig. 3. 27: Carl Andre, *Cuts,* 1967 at Andre's personal exhibition at Dwan Gallery (March 8-Avril 1st, 1967), Archives of the Dwan Gallery, Archives of American Art, Smithsonian Institution

- Fig. 3. 28, Fig. 3. 29, Fig. 3. 30: Paul Thek, *The Tomb — Death of a hippy,* 1967, Stable gallery, New York

- Fig. 3. 31: Claes Oldenburg kneeing in front of *Placid Civic Monument* in Central Park, 1967

- Fig. 3. 32: George Segal, *Woman washing her foot in a sink*, 1964-65, Museum Ludwig, Cologne

- Fig. 3. 33: George Segal, *Street crossing*, (1992) New York, Bronze with white patina, New York, October 2003-February 2004, Doris C. Freedman Plaza, Fifth Avenue & 60th StreetCentral Park, Manhattan

- Fig. 3. 34 and Fig. 3. 35: Duane Hanson, *Supermarket Lady*, 1970, resin

- Fig. 3. 36: Andy Warhol, *Ten Lizes*, 1963, silk-screen with oil and lacquer, 201 x 564,5 cm, Collection of the Centre Pompidou, Paris

- Fig. 3. 37: Andy Warhol, *Big Electric Chair,* 1967, silk screen ink on synthetic polymer paint on canvas, 137 cm × 185.4 cm, Froehlich Collection, Stuttgart

- Fig. 3. 38 and Fig. 3. 39: Tomb of reliefs, Banditaccia Etruscan necropolis, Cerveteri, Italy

- Fig. 3. 40: Tomb of chairs and shields, Banditaccia Etruscan necropolis, Cerveteri, Italy

- Fig. 3. 41: Sarcophagus of the Spouses of Cerveteri, around 510 av. J-C, Terracotta, 114 x 190 x 69,5 cm, Musée du Louvre, Paris

- Fig. 3. 42: Greta Garbo photographed by Ruth Harriet Louise ca. 1930

- Fig. 3. 43: Michael Snow near the machine with camera for the film *La région centrale*, photograph: Joyce Wieland, 1970

- Fig. 3. 44: The machine with the camera for the film *La région centrale*

- Fig. 3. 45: The machine of *La Région Centrale*

- Fig. 3. 46: Michael Snow, Drawing for the machine of *La Région Centrale*, Ontario Art Gallery

- Fig. 3. 47: Andy Warhol, Film stills of *Empire*, 1964, Andy Warhol Museum, Pittsburg

- Fig. 3. 48: Robert Smithson, *Three Side Views of Concrete or Wooden Foundations to be Plotted on Level Ground,* 1966, ink and pencil on paper, dimensions unknown. photo by John Schiff. Courtesy of Dwan Gallery Archives

- Fig. 3. 49: Robert Smithson, *Pulverizations*, 1966

- Fig. 3. 50: Robert Smithson, *Untitled, (Green vertical square maze and woman with stockings)* , mixed media with stencil, 76,2 x 55,88 cm

- Fig. 3. 51: Robert Smithson, *Quasi-infinities and the waning of space*, 1966, in *Arts magazine*

- Fig. 3. 52: Robert Smithson, *Heap of language*, 1966, pencil drawing, 16,5 x 55,88 cm, Museum Overholland, Niewersluis

Chapter 3

- Fig. 3. 53: Robert Smithson and Allan Kaprow, *What is a Museum?*, 1967, *Art Yearbook,* "The Museum World", 1967

- Fig. 3. 54: Radomes of Fylingdages, United Kingdom

- Fig. 3. 55: Robert Smithson, *Proposal for a Monument at Antarctica,* 1966, 21,6 x 30,5 cm, Metropolitan Museum of Art, New York

- Fig. 3. 56: Robert Smithson, *Proposal for a Monument at Anartica,* 1966, 40,96 x 58,74 cm, Los Angeles County Museum of Art

- Fig. 3. 57: Robert Smithson, *Proposal for a Monument on the Red Sea*, 1966, 21 x 16.7 cm, Museum of Modern Art, New York

- Fig. 3. 58: Robert Smithson, *Alogon #2*, 1966, Collection of the Museum of Modern Art, New York

- Fig. 3. 59: Robert Smithson, *Negative Map of Passaic*, 1967, Estate of Robert Smithson, James Cohan Gallery, New York

- Fig. 3. 60: Mel Bochner and Robert Smithson, *The Domain of the Great Bear,* in *Arts Magazine*, November 1966

- Fig. 3. 61: Robert Smithson, Layout project for the text *What really spoils Michelangelo's sculpture* (1966-1967), Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834

- Fig. 3. 62: Robert Smithson, *Untitled (The Time Travellers),* 1964, Collage

- Fig. 3. 63: Illustration from *Crystals: their Role in Nature and in Science* de Charles Bunn, Academic

Press Inc, 1964, p.7.

- Fig. 3. 64: Schema by John William Dunne, in *The Serial Universe*

- Fig. 3. 65: John William Dunne, *in The Serial Universe*

- Fig. 3. 66: Interior view of the cupola of the Guggenheim Museum, New York

- Fig. 3. 67 and Fig. 3. 68: Robert Smithson, *Spiral drawings* in *Notebook*, Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution, reel 3834

- Fig. 3. 69 and Fig. 3. 70: Sol LeWitt, *Wall Drawing #289*, white crayon lines and black pencil grid on black wall, Collection of theWhitney Museum of American Art, New York, photo: installation at the Massachusetts Museum of Contemporary art, 2008

- Fig. 3. 71 and 3. 72: Sol LeWitt, Certificate of *Wall Drawing #541*, 1987 and *Wall Drawing #541* at Virginia Museum of Fine Arts, Richmond, United States, 2008

- Fig. 3. 73 and Fig. 3. 74: Lawrence Weiner, ONE QUART EXTERIOR GREEN INDUSTRIAL ENAMEL THROWN ON A BRICK WALL, 1968, Three versions recreated by Eric Doeringer, 2008-2009

- Fig. 3. 75: Lawrence Weiner, A SQUARE REMOVAL FROM A RUG IN USE, 1969, photograph, text sheet: felt pen on paper, Collection of the MUMOK, Vienna

- Fig. 3. 76: Lawrence Weiner, A SQUARE REMOVAL FROM A RUG IN USE, 1969-2013, Museum of Contemporary Art, Los Angeles, 2013

- Fig. 3. 77: Robert Smithson, *Quasi-infinities and the waning of space*, 1966, in *Arts magazine*

- Fig. 3. 78: Robert Smithson, Sketch for *Quasi-infinities and the waning of space*, 1966, Estate of Robert Smithson, James Cohan Gallery, New York

- Fig. 3. 79: Robert Smithson, *The Museum of the void*, c. 1967, pencil, 48 x 91 cm

- Fig. 3. 80: Robert Smithson, *Drawing for Gyrostasis*, 1968

- Fig. 3. 81: Robert Smithson, *Gyrostasis*, 1968, painted steel, 185,42 x 144,78 x 101,6 cm

- Fig. 3. 82: Buckminster Fuller, *The World Energy Map pictured on a Dymaxion Projection,* first published in *Fortune*, February 1940

- Fig. 3. 83: Ad Reinhardt, *A Portend of the Artist as a Yhung Mandala*, 1955

- Fig. 3. 84: Robert Smithson, *After Athanasius Kircher 1665 Mundus Subterraneus*, 1971, ink and pencil on paper, about 30,5 x 38 cm, The Estate of Robert Smithson, James Cohan Gallery, New York

- Fig. 3. 85: Athanasius Kircher, *Pyrophylaciorum*, in *Mundus Subterraneus*, 1665

- Fig. 3. 86: Robert Smithson installing *The Cryosphere* at *Pri- mary Structures* exhibition, Jewish Museum, New York, 1966

- Fig. 3. 87 General view of *The Cryosphere,* 1966

- Fig. 3. 88: photomontage of *The Cryosphere*, published in *Entropy and the new monuments*, in *Artforum*, 1966

Chapter 4

- Fig. 3. 89: Robert Smithson, *Towards the a development of a Cinema Cavern or the movie goer as spelunker,* 1971

- Fig. 3. 90: Robert Smithson, Letter to Nancy Holt, Friday, July 29, 1961, Robert Smithson and Nancy Holt Papers, Archives of American Art, Smithsonian Institution

Illustrations

For copyright reasons, illustrations cannot be published in the online version of the Dissertation.

Curriculum Vitae

For reasons of data protection, the curriculum vitae is not included in the online version