Visual Production in the Cyberspace
A Theoretical and Empirical Overview
The question of space, be it concrete, analogical or digital, has always been, and will always continue to be a fundamental value of sculpture. This paper has to do with the desire to determine a systematic vision regarding the way in which any sculpture of the 20th century, while fleeing from the presuppositions of modernism, has become a precursor to one of the most influential aspects of contemporary (or post-modernist) sculpture; that of excessive scale and the immersive dimension of the spectator. The approach of this proposal is structured upon the following: Kolossós and Colossal (genealogy and morphology of sculpture); The spatial dimension as a subversion of modernism; Scale and sense of immersion; The immateriality of contemporary sculpture in the crossroads between physical and digital space.

Although this approach does not refer explicitly to the question of cyberspace, it does however, aim to establish elements for a wider reflection on the notions and implications of the various modes of space.

Kolossós and colossal

The sense of spatial immersion provoked by colossal scale (in some sculptural projects) brings the spectator closer to the feeling of wholeness, an aesthetic characteristic of the sublime.
When in sculptural terms one thinks of scale, the first words that come to mind are: colossal and monumental. The term monumental derives from monument and is frequently wrongfully perceived as monumentality. Whereas a monument refers to the commemorative or evocative public sculpture of a hero or event, monumental designates the sculpture and surrounding space ensemble and/or majestic scale of the monument. Monumentality, even while sharing a common origin, is more of a sculptural value and has to do with the plastic quality of a sculpture whose space, even when small, creates the illusion of grandiosity, normally attained by volume reduction and the equilibrium between scale and proportion.

Initially colossus began as a specific type of sculpture; later the term changed and the concept of colossal was born, which, as a consequence, was to define something very big (Bush, 1979).

This differentiation between sculpture of disproportionate scale, known as colossal, and the initial concept of Kolossus was developed by Jean-Pierre Vernant (1993) who states: The term kolossós, alluding to the funeral rite of the ancient world, marked the replacement of the corpse, in the case of its absence. This transfer (ritual and symbolic) was usually incorporated into a rough stone, of non-figurative character (aniconic), in order to ease the family’s anxiety and appease the dead person’s soul.

According to Jean-Pierre Vernant (p. 28) there are also some similarities and some differences between the terms Kolossós and Psiché.

The psyche is something from the beyond; when manifested in this world under the form of an apparition, it is the ghost of the body, a double which reproduces all its peculiarities; but as an entity of the beyond, it is coated on earth of a non-reality status; it is ‘nothing’: shadow, smoke. The Kolossós, on the contrary, is something of this world. It is consistent, solid, immutable, and continuously present in the very place that humans built it. If it evokes the missing person in the world of shadows, it

---

accomplishes it no longer simulating the living appearance of a past time, but expresses through a rough stone, which is always more or less aniconic, the aspects of strangeness and otherness, of non-form that have become the aspects of the dead since leaving the light of day. The similarity of the Psiché with the appearance of the individual as a living being, constitutes the other side of its unreality or, if one prefers, of the supernatural. The reality of Kolossós seems to exclude any similarity effect, any project of imitation. To evoke the missing absentee, the stone must accuse the distance that separates it from the living person.

For those interested in deepening this issue, the author also establishes a correspondence between the aniconic form of kolossós and the subsequent transition to the Kourós representation that marks the passage of the double to the image, through transformation of the aniconic symbol into the figurative representation of the deceased (Vernant, 1993).

In the same sequence, Vernant (op. cit.) also equates the image of the Koz1ros as a “figurative representation of the visible appearance” to the eidolon “which embodies, in a supernatural way, the deceased’s figure, or body mass”.

This incursion, although interesting from a philological point of view, does not allow us further development in this context, unless to recall the transition from the concept of Kolossós to the sphere of Colossal.

3 Although kolossós is truly intended to evoke the missing person, to replace it embodying its non-presence, and if it does so through an aniconical shape, how is it that in the sixth century, the rough stone erected on the tomb [...] gives way to the figure in high relief of the funerary kourós, and how does a new kind of iconographed stele, alluding to the representation of the dead, appear painted or engraved? In other words, the question that faces us here is the passage of the double to the image, the transformation of the aniconic symbol to a figurative representation of the dead (Vernant, op. cit., p, 29).

4 An eidolon on a funeral or a tomb performs the part of a substitute for the missing corps. Without being aniconic, but in a fully human way, this eidolon is not an image; it doesn't represent the face of the dead person; it gives presence to the dead person. It is not intended to give the misleading impression of similarity by its insertion in the funeral ritual; it works as a substitute for the deceased. (Vernant, op. cit., pp, 34, 58)
Although *kolossós* is currently decontextualized from sculptural practice, the notion of *Colossal* or the implications of disproportionate scale, remain a key feature of contemporary sculpture, as we shall see anon.

**Spatial dimension as a subversion of modernism**  
*(On domestic scale and the nomadic nature of sculpture in the first half of the twentieth century)*

While modern sculpture has expressed itself particularly through small format objects with transhumant character⁵ (which do not require a separate space) it is also true that there were exceptional projects that sought to escape this rule of intimacy and came to lay the foundation of spatial enquiries over contemporary art.

In this sense, from the transition of modernism to post-modernity, we intend to examine three works: the spatial modulation device - *Modulateur lumière-espace* - on which László Moholy-Nagy worked during the nineteen-twenties; *Merzbau* - the inhabited sculpture or the sculpture workshop that Kurt Schwitters constructed as a *Cubist / Dadaist* test (between the twenties and thirties); The landscape integrated sculpture project - *Târgu Jiu* - whose central axis determines a path and establishes a physical and symbolic connection between the part (the several sculptures) and the park as a natural whole, as an evocation of fallen heroes during wartime.

**Lásló Moholy-Nagy (1895-1946)**

*The Light-Space Modulator / Light Display Machine* (1922-1930)

Born in Hungary, Moholy-Nagy was a professor at the Bauhaus in Weimar and Dessau between 1923 and 1928. Alongside his teaching activity, as an artist he developed a multifaceted and multidisciplinary

⁵"La drástica reducción del formato en las esculturas, que se puede apreciar en las obras creadas a principios de siglo, com respecto a la escala monumental de las épocas anteriores, va a ser consecuencia de la pretensión de los escultores de exhibir sus obras sin complicaciones en los mismos lugares en los que se presenta pintura. Con ello intentaban los escultores que sus obras fueran también bienes coleccionables, procurando atraer a los compradores de medianos recursos, aquellos que coleccionan pintura. Las consecuencias de esta actitud condujeron a que las esculturas perderán el carácter monumental y se convirtieran en 'objetos transportables' independizándose de los lugares concretos y, como los cuadros, se hicieron trashumanentes, pudiendo ser ubicadas en cualquier lugar, sobre una chimenea, en el rincón de un salón o en centro de una cómoda". (Maderuelo, 1994, p. 29)
body of work in the context of painting and sculpture, theatre, industrial and advertising design, typography, photography, and experimental films.

In 1935 he moved to London and in 1937 he emigrated to Chicago where he became the director of the new Bauhaus and founded the Design Institute which he directed until his death.

The book *From the Material to Architecture*, written in 1928 (that preceded a series of publications on the Weimar Bauhaus) resulted in a kind of university notebook where the author, besides demonstrating his ideas about the use of movement and photographic light in the construction of artistic and architectural nature projects, approached the use of plastic materials and ways of working with them, through the use of machines and tools. Profusely illustrated, and along with programmatic exercises, the book presents some allusive images to experimental proposals developed by him, his students or other constructivist artists.

*The Light-Space Modulator*, later called *Light Prop*, or *Light Display Machine* (Passuth, 1987, p. 53), which was considered his biggest work, was certainly inspired by *Kinetic Statue*, also named *Kinetic Construction* or *Standing Wave*, by Naum Gabo (1890-1977) between 1919-20 and replicated in 1985.

As a kind of mobile that shapes the space with light and shadow, *Light Display Machine* expresses the author’s artistic aspirations and main ideas. *The Light-Space Modulator* ended up incorporating the essence of the aesthetic avant-garde of its time (the essence of the spirit of a new age), the mixture of Constructivism (idea), Suprematism, (coloured beams) and Dadaism (object/machine). The relevant planning and technological research towards the development of the structure (with lamps and mirrors) lasted about eight years (1922-1930). For its construction, Moholy-Nagy had the help of technician Otto Ball and fellow Hungarian, engineer István Sebok (*Furor Dada*, 1999). The complete project, from the first idea until finding the right structure, along with the simulation of the possible object effects, in which the author incorporated many aspects of his work, lasted about twelve years.

---

6 Moholy-Nagy, László. (2005) *De Material à Arquitectura*. Barcelona: Gustavo Gilli, SA.
The basis of the composition is a rotating disc with three metal frames whose edges meet. The oblique glass spiral placed on the disc traverses an inclined glass plate. Three metal screens with oblique axes and of different patterns, as well as two half-perforated metal discs, are also in contact with the lower, rotating disc. The spiral is in motion, the light projected upon the mechanism passes through the three metal screens whose position, owing to the rotating movement, is constantly changing, as is the silhouette projected at the distance of two or three meters (Passuth, 1987).

László's enthusiasm before his crowning achievement lasted for many years and left marks that transpired in other aspects of his work, where one can perceive frequent references and recurrences to the modulator (Furor Dada, 1999).

Although the work was inspired by the mechanical art (machine art) of Dada influence to the extent that the author assumes the aesthetic value of the object, it differs, however, from the ironic anthropomorphism, the pseudo-mechanisms and laconic brutality of Dadaist irreverence. The main interest of the project does not reside in the machine but in its light and shadow projection. However, the author adapts a careful selection of methods, technologies and materials that point beyond the functional nature and attest to the safeguard of materiality's decorative nature; one could say that besides the object's functionality, it is also proud of its own body.

It should be noted that the radical nature of Moholy-Nagy's object stems from the awareness he possessed of being in the process of creating a new genre that would impact a great part of sculpture as an art form in the second half of the twentieth century.

One consequence of the Modulator can be seen in the incorporation of real movement in the kinetic art of the fifties, in particular the satirical, ironic, absurd and self-destructive machines of Swiss sculptor Jean Tinguely. Another strong influence concerns the profuse use of machines, either as a referent or as the raw material of, in particular, the automobile in sculptural production in the second half of the twentieth century.

The role played by the machines should be noted, either as subject or as a referent, to pop art artists such as Claes Oldenburg (1929) who
represented numerous everyday artifacts in textile material, in particular the series of Dormeyer mixers ("soft dormeyer mixer" - 1965). Also, to be duly noted is the use of car scrap metal as a raw material by the sculptors César Baldaccini (1921) and John Chamberlain (1927) and the appropriation of automobiles, appliances and planes in the works of sculptors such as Arman (1928), Wolf Vostell (1932-1998) or Jimmie Durham (1940).

Kurt Schwitters (1887-1948)

Merzbau (Hannover - 1920-36 / Norway - 1937-40)

Kurt Schwitters was born in 1887, Hannover, Germany. He graduated in painting and fine arts in Dresden (1909-1914), one of the centers of German expressionism. In 1917 he collaborated with Der Sturm (The Storm) magazine, that reconciled the various forefront trends of the time, including Expressionism, Futurism, Cubism and Dadaism.

In 1918, he abruptly abandoned traditional painting materials and made the first abstract collages, a technique that would become the essence of his personal language.

In 1919 he created his first *Merz* - (Merzbild) paintings, "collage-assemblage" compositions made with everyday objects, pieces of paper, wood, plastic, fabric, metal, applied on the base of the pictorial surface (Sanouillet, 1969, p. 18). The word *Merz*, means *assemblage* for artistic purposes and requires the use of all possible and imaginary materials beyond the adoption of the equality principle of the materials on a

---

7 See for example: "Personnage" — anthropomorphic figure built with car scrap metal, 1955 (Seuphor, 1959, p. 137); "Compression" — compacted car on a bloc, 1962 (Daval, 2006, p. 1074); "Ricard" — compacted car, 1962; (Rowell, 1986, p. 115); "La buick jaune" — small prismatic monolith made of a pressed car, New York Museum of Modern Art, 1968. (Ferrier, 1995, p. 6)

8 See, for example: "Untitled" — welded steel, 50,5x40,5x30,5cm, 1960 (Read, 1998, p. 270)


10 "Why did the trial between Pilate and Jesus take only 2 minutes?" — Museum W. V., Malpartida de Cáceres, 1994 (Rico, 2000, pp. 292-293)

technical level. The term *Merz* arises in a very similar way to the *Dada* movement. *Merz* is the second syllable of the word *Kommerz*, the element that stood out from the use of the advertising brochure — *Kommerz and the privatbank* — in a collage (Webster, 1995, p. 86). After that, the suffix - *Merz* - eventually became autonomous and transformed itself in an operative concept with a life of its own; the *Merz* in Hannover acted like *Dada* in Berlin. *Merz* was an operative and polyhedral attitude, that was applied both to the pictorial compositions - *Merzbild* - (called, as they arose, by their chronological order) in the two-dimensional plan and to hybrid and three-dimensional structures (Garcia, 2013).

In 1920 or 1923 he began the first construction of the (*Merz House*) *Merzbau* in Hannover (Sanouillet, 1969, p. 18).

*Bau* means construction in German; the process that combined techniques and materials without any categorization and that obeyed solely to the project’s temporal and spatial design factor. Deleuze would later call this procedure “inorganic vitalism” and characterized it as *flow* where the *collage* of random suitable objects was part of a sculptural programme designed as a performance; the objects found were assembled inside the building on a continuous process which grew to modify the structure, leaving the walls and ceilings unaltered to favour the growth (Garcia, 2013). The huge architectural structure to which he devoted a decade and a half of work, was built in plaster, wood and other materials. It began in the basement and extended in all directions, even into rooms, from the floor to the ceiling.

In 1923 he also founded the *MERZ* magazine that was published until 1932. He focused his work on typography, graphic design, advertising and phonetic poetry.

In 1936, after the ban of abstract painting (the destruction of works and their withdrawal from museums), seen as “degenerate art” by the Nazis, Kurt Schwitters resorted to his exile.

---

12 "Le mot Merz signifie l’assemblage à des fins artistiques de tous les matériaux imaginables et, par principe, l’égalité de chacun de ces matériaux sur les plan technique" (Linares, 2010, p. 213)
13 On the subject of *Merzbau* see the essay: “Balance general - Programa para máquinas deseantes” (Deleuze & Guattari, 1977) quoted by (Garcia, 2013).
14 *Merzbau* was reconstructed on the eighties. “1980’s - Reconstruction of Merzbau at Tate Modern”, retrieved access 14 February 2014, from http://www.youtube.com/watch?v=4cF2Qb4bNm0
Between 1937 and 1940 he lived in Norway where he began the second construction of Merzbau, which was destroyed in 1951.

In 1940 he moved to England (Ambleside) where he died in 1948 (Dabrowski, 1986).

The influence of Kurt Schwitters on contemporary art is revealed through the multidisciplinarity of his artistic intervention, being a precursor in fields as diverse as poetry, phonetic poetry, typography, graphic design, advertising, painting, architecture and sculpture.

**Constantin Brancusi (1876-1957)**

*Târgu Jiu (1937-8)*

Son of Romanian peasants, he soon began carving wood as a part of local tradition. In 1898 he finished his crafting course in Craiova, afterwards attending the Bucharest Fine Arts Academy. From this period, it is his anatomical study that is well-known - the statue of the skinned (Moholy-Nagy, 2005, pp. 178-179) which he presented in the Romanian Athenaeum in 1903. Unhappy with the cultural environment, he left that same year to Munich and then went to Paris where he studied with Mercié and Rodin. The relationship between them was short because the Romanian sculptor came to the conclusion that “under the shade of large trees nothing but bushes can grow.” As his interest was direct carving, he noticed that he would better learn this technique with a stonemason than with Rodin, who was primarily a modeller.

In 1908, by the time “The Prayer” statue was completed, Brancusi definitively abandoned modelling and classicism (tutored by Rodin) and had replaced modelling and molding with direct carving in wood or stone, and through it would initiate a set of long series (the kiss, muse, birds, fish, or infinite column). His systematic recurrence to this process would lead him to the essence of formal reduction and to being considered by his contemporaries as the precursor of abstraction.

15 By choosing the direct carving, Brancusi moves away from the impersonality of reproduction, attributed to Rodin’s work; Brancusi took the direct carving to the opposite direction: his hand is the last to touch the object; he is the sculptor as well as the finisher (Tucker, 1999, p. 58).

16 Brancusi does not consider himself as an abstract sculptor. He considered himself, mostly, a realist sculptor that did not represented the appearance but the idea that was the essence of things! “They are imbeciles who call my work abstract. That which they call abstract is the most realistic, because
Although his work does not fall within the major avant-garde movements of the twentieth century (futurism, cubism, surrealism) his profound influence on modern and even contemporary sculpture is unquestionable. In 1952 he became a French citizen. He donated the studio and its contents to the Centre Georges Pompidou and died leaving about 1200 photographs and 215 sculptures. In addition to the numerous small size sculptures that characterize his sculptural path, there is an intervention in a public space that, in this context, deserves particular attention: the sculptural group "Târgu Jiu", built in the city where he spent his youth, (Ferrier, 1995, p. 393), that celebrates the courage and sacrifice of Romanian citizens during World War.

The Memorial, ordered to the sculptor by the Prime Minister Militza Patrasco, who with his wife, also a sculptor, devoted themselves to the project, in collaboration with the National Women's League of Gorj (Curtis, 1990, p. 174), develops in length (about a mile long) in the urban park. It begins by the river Jiu with the table of silence, extends through the walk of the seats (12 seats in hourglass shape [X] showing a clear evocation of Christ's Last Supper), continues towards the kissing door\(^{17}\) and culminates in the infinite column\(^{18}\) (composed of 17 modules, where the eyes rise up 30 meters into the sky).

Brancusi's influence on contemporary art established itself in two ways: firstly through the transformation of the idea of passive monumentality (in which the singular work is limited to the physical space of sculptural implementation) into the idea of active monumentality (given by the installation of sculpture sets in the public space) which emphasizes the dynamic role of the observer before the path; secondly by the presentation of the works without plinths (the sculptures emerge directly from the ground, in stark opposition to the more conventional format).\(^{19}\)

---

\(^{17}\)"Kiss door" — travertine marble, 332x 527cm (Tucker, 1999, p. 137). The motif "kiss" that gives name to the arc results from the synthesis of one of the most extensive series that the sculptor developed between 1907 and 1945 (Teixeira, 2009, p. 65).

\(^{18}\)"Infinite column" — steel and copper, 29.35m (Tucker, 1999, p. 58); (Ferrier, 1995, p. 537).

\(^{19}\)Plinth's integration on sculpture began with the revolutionary fall from the pedestals, which began on the sculptural group "Bourgeois de Calais" (1884-86) that Rodin places at the level of the passer-by.
The integration of the plinth in sculpture, a distinctive feature of Brancusi's work, strongly influenced sculpture of the twentieth century, particularly in minimalism and post-minimalism. Richard Serra (1939) confirms such a contribution when he states that the main advances in twentieth century sculpture took place when it waived its pedestal (Foster, 2013, p. 176). This allowed sculpture to assert itself as an extension (horizontal) in its pure tectonic materiality, as opposed to the modern idealistic perspective (monolithic and vertical).

The singular path of Târgu Jiu is an inspiration to works such as the Bruce Nauman's Corridor and paves the way to some environmental practices associated with Land Art20 such as the paths of Richard Long or Las Vegas piece by Walter de Maria.

Scale and sense of immersion

The third part of this approach focuses on three types of projects designated as pathways, observatories and sanctuaries. As the names suggest, this group of works translates into a notion of non-achievable space through a singular point of view; to be properly seen, these constructions (post expanded field) demand the full immersion of the spectator, inviting him to move around them, never achieving their total vision.

Paths

From a postmodernist perspective, regarding Constantin Brancusi’s aforementioned intervention, it is appropriate to draw attention to the growing empowerment of the spectator’s role and the importance of the verb to walk as an integral part of the artistic process and production, such as in the projects of “walking artist”, Richard Long (1945), “Environmental Artist” Walter de Maria (1935-2013), in the interventions of urban public art by Francis Alÿs (1959), or in the participatory art of Artur Barrio (1945).

---

20 The “Earthworks” usually claimed as in the field of sculpture contradict the initial thesis by Rosalind KRAUSS, that does not considered them sculpture: [...] they exist “in an expanded field”, that is placed somewhere between what it is not - “not-landscape” and the “not- architecture” (Krauss,1979, pp. 31-34).
Richard Long was a student of Antony Caro at St. Martin's School of Art where, at the time, there was "a sort of mannerism that consisted of making welded and colourfully painted sculpture."

As with other contemporary Americans, the Bristol-born British artist broke away from modernist formalism, lost interest in official museum aesthetics and discovered his main focus of attention in "Land art" and "Environmental Art".

Some decades later, when one talks of Richard Long, what immediately springs to mind are his circular or linear alignments spread across the five continents\(^{21}\) (as well as some installations with natural elements in the indoor spaces of galleries and museums).


"I Walk
To think...
I walk to find meaning through my stepping body
One after another
My strides define who I am becoming
Opening me to that which is yet to come."

On his artistic process it is worth noting some excerpts from an interview that took place during the nineties when passing through Portugal (Pérez, 1999).

*Rudi Fuchs once stated that 'A line made walking' (1967) is a kind of matrix for your posterior work...*

"I think that it was a starting point, where I realized that just the process of walking could be the medium to make art. So from that first line I realized that the visibility or invisibility of the work just depended on how many times I walked the line. If I walked it a hundred times, I could make a line, if I walked

once, it was invisible. So, from that line, the next line I did was a straight ten-mile line across some moors in England. So, the possibility of making art by walking gave me the dimension of time in work of art, as well as a work ten miles long.”

On the subject of the differences between European and American land art he explains:

Would you agree that American artists tend to have a more monumental approach to the landscape?

“Yes. I think in a way, I have a more philosophical point of view, and they were more physical, and, as you say, monumental. Their work was all about ownership, about possessing of the land, you know, buying the land, and then making a large sized work, using machines, and then taking aerial photographs. I felt quite separate from the American ‘land art’. In retrospect, I was much closer to the spirit of ‘arte povera’ trying to make art with nothing, and also to conceptual art, because ideas are very important in my work, it’s not just the physical part of it.”

On the importance of photography in his work he confesses:

Is this need to perpetuate something that could become completely invisible, after a certain time related to the photographs that normally accompany your work?

“In the beginning the photograph was only a way to record something that I had done somewhere and then to show someone else later. It was really just a sort of record, to communicate. So, it was just a record to communicate. Since then the photograph has a real function in my work, because, it brings remote sculptures that could be lost in the landscape, or many thousand miles away, or disappear in a few moments, all type of work, into the art work through through the image of photograph. The photograph is useful and versatile because I can make a unique photo work, or I can have photographs in a newspaper, or in a book, or in a catalogue. They have a certain practical function.”
On the subject of including maps and text in his work he says:

“...I would say that the maps, the text works and the photographs are for the imagination, whereas the sculptures that you see in the gallery or in the garden like here in Braga are directly experienced.”

On Pop art as a counterpoint to environmental art, he clarifies:

“Most of the art that is made in our western art world is made by people living in cities, so in a way it’s a kind of urban pop art. Pop art is one of those movements that are always being reinvented [...] And a lot of pop art, as Gilbert & Georg say, is about sex and modern stupidity.”

In conclusion, as underlined by David Barro (2004):

“For Richard Long, a path is a place [...] Maybe we should think of his work as a diary, as a visual document of a series of private experiences, as a register. In this sense, let us talk about Richard Long as a harvester who acts with the greatest respect for nature, avoiding any manipulation which would bring him closer to the creators of ‘earthworks’. [...] Long looks for the experience of the document and not of the monument, from there is tracks are minimal, although is journey is maximal. In other words, it is nature which imposes itself on the artist and not the artist on nature. [...] From the landscapes Long takes photographs and texts and not stones as many might think.”

The second artist whose idea of path is a determining factor in the work’s construction is Walter de Maria (1935-2013). Let us recall, mostly “Las Vegas Piece” from 1969, comprised of a straight line, a mile long, carved in Nevada’s southern desert, or “Lightning field”, 1974-77, consisting of 400 two-inch thick steel poles, planted around an area of 1 km² in the New Mexico desert (USA). These sculptures more than to be observed, are to be walked through (Beardsley, 2006, pp. 60-61).

The third artist to recall regarding the use of walking as a poetic
intent, is Belgian artist Francis Alÿs (1959) living and working in Mexico City. Francis Alÿs is a multifaceted artist, who has developed a body of work both in Land art as well as in public urban art, making use of different mediums – video, performing actions, communal participative art, painting, photography objects, maps, postcards, pictures, etc.

The first project to reference in the present context is The Collector. It is a toy in the shape of a magnetized “puppy”, with which the author walked through the streets of Mexico City, like a child dragging his toy, collecting traces of the urban space around him. At each passage the ‘magnetized device’ attracted to itself several items of metallic debris. The adventure ended when the ‘puppy’ was completely covered with them.

The project’s final show consisted of the video presentation of its performance, the ‘toy-puppy’, its captured objects, paintings, drawings, the city map and other elements related to the journey.

Another project where the artist turned the act of walking into an artistic experience with vital political intent was with the “Green Line of Palestine”. Here the artist, acting literally, carried a can of green paint with a hole in it along the Israeli-Palestinian border, which in so doing, alerted literally to the symbolic and paradoxical line of conflict, known as the Green Line.

In the same line of thought, we recollect the performance “Praxis Paradox”, also called “Sometimes doing something leads to nothing” where Francis Alÿs pushed an enormous block of ice through the city.

Was it an emphatic statement on the primacy of aesthetic uselessness, or an alert to inhuman absurdity of border control?

Lastly, we will mention the community happening “Cuando la fé mueve montaña”, in which about five hundred persons took part,

---
22 About the comparison between the “flâneur” poetic attitude in Charles Baudelaire and the walking as a method in Francis Alys see: (Bagatoli, 2014, pp. 2755-2766)
23 The Collector – toy shaped like a puppy with wheels, video, photography, maps, sketches, annotations, variable sizes, México, 1991-2
24 From the Magnetized puppy, handmade from metallic foil, 100 replicas where made that look like one of a kind each, for although they retain a basic shape, each exemplar as unique co:ors, depending on the raw material recycled from other products packages.
between students\textsuperscript{26} and volunteers, dressed in identical uniforms, equipped with shovels, to move a dune by ten centimeters.

Finally, before finishing this list of examples of artists who make walking a poetic and fundamental act to the building of their works, I would like to recall the singular project \textit{Quatro dias e Quatro noites} that Artur Barrio\textsuperscript{27} (1945) developed in 1970.

\textit{Quatro dias e Quatro noites} or \textit{Four days and four nights} was the time taken by the artist to walk non-stop across Rio de Janeiro, almost without nourishment, experiencing famine, cold (practically without warm clothes) and the absence of any refuge.

The project allowed him to establish a channel between vagabond, detective, or the wandering poet like Baudelaire. The continuous and sleepless walk to exhaustion allowed him access to an acute sensorial perception, adapted to whatever events took place around him. To the spectator-reader, this trek without maps, no pre-determined course, no beginning or end, would be a sort of hypertext, wandering, that would never be read, because it is written continuously, from several beginnings and options that never produce an ending (Barro, 2005).

What makes the walk a poetic element is neither the action practiced in itself by the subject, nor the place where it happens, but the connections established by the walker between subject-space-time and his ability to materialize the experiences lived in a way that can be inserted into the artistic context (Bagatoli, 2014).

One can say this to be an open-ended experiment, like a permanently unfinished hypertext.

\textbf{Observatories}

In comparison with Richard Long’s personal approach, the American Earthworks show a more monumental approach than that of the

\textsuperscript{26} With students from Universidad Inginiera (UNI); Universidad Católica; Universidad Federico Villareal in San Marcos.

\textsuperscript{27} Born in, Porto, Portugal, studied in FBAUP (Porto High School of arts), is an artist that lives and Works in Rio de Janeiro, Brazil. Much of his work is based on pieces that require interaction with the public.
United Kingdom. I recall, incidentally, the paradigmatic *Spiral Jetty* (1970) that Robert Smithson (1938-1973) built in Salk Lake in Utah\(^\text{28}\), a work that cannot be contemplated passively, demanding actually that the spectator moves and walks through it, and cannot be perceived, in its entirety, at just a glance (Beardsley, 2006, pp. 26-28; 91-93).

The first artist selected to illustrate this set is Robert Morris (1931) and the paradigmatic earthwork, *Observatory*. This work, built in 1971 in Michigan, would later be rebuilt in 1977 in Holland. The 90-meter in diameter circular structure was made of two concentric rings that resembled a dyke. The structures, aligned east to west, pointed to Summer and Winter solstices. The morning sunlight emphasized the axial space, thanks to square plaques set outside. The combination of the inner and outer views was supposed to, according to Morris, produce a sense of movement, as in the primitive observatories. According to the author, the set evokes certain oriental structures and some Neolithic monuments, specifically, Stonehenge (Raquejo, 2000).

In short, besides highlighting the importance of the observer's participation, this Earthwork established a reference to Neolithic monumentality and to archaic time keeping procedures. One of the questions that arises, in particular concerning Land art or environmental art is what to do with the question of maintenance, for, as one can tell by images taken after construction, nature and entropy tend to rapidly destroy such structures.

Following on from the previous thread, the second work that I would like to recall is *Sun Tunnels* by Nancy Holt (1938-2014). *Sun Tunnels* (1973-76) is located northwest of the Utah desert and was conceived by Nancy Holt after her husband Robert Smithson's tragic aircraft accident when flying over Amarillo Ramp (Dwan & Lippard, 2014). The installation consists of four concrete tubes set in cross formation, aligned in such a way that during the winter and summer solstices the sunlight completely fills their inside. Besides the specific orientation each tube has several perforations of variable sizes, that correspond to the projection of the Dragon, Perseus, Dove and Capricorn

---

constellations. In a similar way to the former example, this structure also recalls Stonehenge and emphasizes the astronomic observatories intent. One should note, however, this project’s particular intent in “showing the vast desert space on a human scale” (Beardsley, 2006, pp. 34-36).29

Sanctuaries

The third and last set to evoke falls into what can be called sanctuaries. The first Earthwork in this group is *Roden Crater* that James Turrell (1943) transformed into a great ‘laboratory’ of multidisciplinary intervention.

In 1974, James Turrell conceived of a project for a natural setting that would extend his explorations of light and space from the studio into the western landscape. After an extensive search, Turrell was able to arrange the purchase of Roden Crater in 1977, with funding provided by the Dia Art Foundation, and construction began in 1979.30

*Roden Crater* reports to the intervention over the crater of a volcano (extinct 389,000 years ago) situated in the Arizona desert, whose inside was carved in such a way as to form a set of rooms connected by underground tunnels. Each room was aligned to a specific part of the sky and revealed a special astronomic perspective, where a certain phenomenon could be observed, whether lunar, solar or stellar. This complex project, to which the artist dedicated over thirty years, gathered an infinity of interdisciplinary achievements that range from architecture to engineering, physics, astronomy, geology, anthropology, ending in being a synthesis of all his artistic work, particularly geared towards the perception and manipulation of the nuances of light (Turrell, 2009).

His vision for the project has changed somewhat over the years,


as spaces were added or altered based on experience he gained in working with light, but remains consistent with the original plan for the site. When complete, the project will contain 20 spaces (some with more than one viewing space). The light within the spaces will come from many sources, and some effects will be familiar to those who have seen the artist’s installations and Skyspaces over the years. The relative remoteness of Roden Crater will require a journey and a commitment of time on the part of visitors, deepening the experience of discovery.\(^{31}\)

In *Roden Crater* James Turrell revealed that he was interested in taking art’s cultural artifice outside and insert it in a naturally involved context. He did not pretend that his work would be a stamp in nature but instead, that it would be enveloped by nature in such a way that the light of the sun, the moon and the stars would induct into the spaces. He wanted that in that space one could feel the geological time allied to the perception of spatial events associated with the transformations of light.\(^{32}\)

That is why he specifies that his work, although a product of his views, is more about vision than about his vision. One can say that his main challenge is to convey a sense of presence to the space, and transform it into the physical sensation of an entity.\(^{33}\)

In short, Roden Crater has to do with environmental work, but mostly it results in knowledge.

Roden Crater has knowledge in it and it does something with that knowledge. Environmental events occur; a space lights up. Something

---

\(^{31}\)http://rodencrater.com/about

\(^{32}\)“At Roden Crater I was interested in taking the cultural artifice of art out into the natural surround. I did not want the work to be a mark upon nature, but I wanted the work to be enfolded in nature in such a way that light from the sun, moon and stars empowered the spaces ... I wanted an area where you had a sense of standing on the planet. I wanted an area of exposed geology like the Grand Canyon or the Painted Desert, where you could feel geologic time. Then in this stage set of geologic time, I wanted to make spaces that engaged celestial events in light so that the spaces performed a "music of the spheres" in light. The sequence of spaces, leading up to the final large space at the top of the crater, magnifies events. The work I do intensifies the experience of light by isolating it and occluding light from events not looked at. I have selected different portions of the sky and a limited number of events for each of the spaces. This is a reason for the large number of spaces.” (Air Mass, The South Bank Centre). “Roden Crater”. Retrieved access 17th october 2014, from http://rodencrater.com/

\(^{33}\)http://rodencrater.com/about
happens in there, for a moment, or for a time. It is an eye, something that is itself perceiving. It is a piece that does not end. It is changed by the action of the sun, the moon, the cloud cover, by the day and the season that you're there, it has visions, qualities and a universe of possibilities.\textsuperscript{34}

In a similar fashion shown by Robert Morris or Nancy Holts' \textit{(in Observatories)} fascination for archaic constructions such as Stonehenge, so too does James Turrell admit his attraction for \textit{Borobudur, Angkor Wat, Machu Picchu, the Mayan pyramids, the Egyptian pyramids, Herodium, Old Sarum, Newgrange and the Maeshowe}, and confesses that any of these places and structures are sure to have Inspired him, but his thoughts and ideas have found their full expression in Roden Crater.\textsuperscript{35}

To close this cycle dedicated to ‘sanctuaries’ set in natural sites, we would like to recall the Tindaya project, initiated in 1993 by the basque sculptor Eduardo Chillida, and that constitutes one of the most impressive challenges of contemporary art.

The choice of Mount Tindaya (400 metres high) on Fuerteventura Island, south of Lanzarote, in the Canary Islands (28° 35' 13" North Latitude and 14° 04' 13" West Longitude) took place in 1994, after lengthy research by the sculptor.

The project, which started as utopian, ended up meriting the support of some administrative authorities that converted it into a “monument to tolerance”\textsuperscript{36}(2011) and into a symbol of the region’s touristic development.

The concept originated in Chillida’s will to experiment in an immense cubic space, in the inside of a mountain, and emerged as

\textsuperscript{34} Id.
\textsuperscript{35} Ibid.
\textsuperscript{36} ‘Monument to Tolerance, Fuerteventura — In 2011 local authorities decided to go ahead with a project by Chillida inside Mount Tindaya on Fuerteventura despite concerns from environmentalists. According to Chillida’s plans, an artificial cave is to be bored into the mountain. The huge cubic cave, measuring 40 metres (131ft) along each side, is to be dug from inside a mountain that has long been revered by the inhabitants of the dusty, barren island to the south of Lanzarote. About 64,000 cubic meters of rock will be taken away from the mountain, which rises out of an arid landscape in the north of the island, to create what Chillida called his ‘monument to tolerance’. Chillida’s original idea was for visitors to experience the immensity of the space.” (Tremlett, 2011). “Spanish island allows massive cave to be bored into ‘magic’ mountain”. \textit{The Guardian}. Retrieved access 13th October 2014, from https://www.theguardian.com/world/2011/jan/20/eduardo-chillida-tindaya-fuerteventura
the need to show the sculpture “from within” (1953), a preoccupation already shown in his series “Lo profondo es el aire”, performed in granite, alabaster and steel, during the nineteen-eighties.

The intervention is formed by a vast, void, cubic space, the result of the stone extracted from the mountain (it is estimated that over 64 thousand cubic metres of rock were removed) measures about 45 metres high, 49 metres wide and 65 metres long (the empty space is a little wider than the larger cupola of the Pantheon in Rome - ø43,5m).37

The central chamber with flat walls carved in situ38, is illuminated by two openings: The bigger, towards the south (measuring 30x21x65m depth), is dedicated to the Sun. The other, smaller, facing North (measuring 20x20x65m depth) is dedicated to the moon. A third tunnel (measuring 68 metres) coming from below, leads visitors to the room where one can see the sea. The idea, more than a geometrical exaltation, intends to be instead an invitation to meditation over space and time.

Once inside the central chamber, it is possible for the observer to ‘think with his body’ (Barañano & Ordóñez, 1996, p. 40) and realize the sublime sensation of unmeasured space and, maybe, feel a slowdown in his perception of the passage of time, besides witnessing the shades of the sea below, and the movements of the light of both sun and moon, projected through the two axes that cross each other in the space above.

The immateriality of contemporary sculpture in the crossroads between physical and digital space

Reaching the end of this reflection, and regarding the immersive propensity of contemporary sculpture, it remains to be mentioned that alongside scale, immateriality and virtuality also contribute towards giving the spectator an identical sense of grandiosity as well as disorientation.

38 The sistem is similar to the one used in the monolithic church of Lalibela, which was entirely carved out of a mountain in Ethiopia.
Along this line of thought, the first work to focus on is “Descend into Limbo” (6×6×6m)\textsuperscript{39} by Anish Kapoor (1954). Inspired by its homonym (1492) by Renaissance painter Andrea Mantegna, the sculpture consists of a cubic building, whose interior, filled with darkness, houses a black hole at its centre.

What the “vacuum” of that “non-object” ends up exposing, is the meaning of the relationship between the infra and the supra spatial, while aiming to produce within the spectator, sensations of disorientation and amazement, metaphorically associated with the infinite.

Another work in which the play between interior and exterior is managed in association with excessive scale, is “Leviathan”\textsuperscript{40}, in which the artist explores the plasticity of pvc (polyvinyl chloride) to create an inflatable tube that expands exponentially throughout the architectural interior of the Grand Palais in Paris.

The immense organic structure in which the spectator is made to feel insignificant, explicitly recreates the amazement and fear felt before a mythical creature\textsuperscript{41} which, in terms of contemporary imagination, could correspond to an immersive journey through the interior of our bodies. In an analogy to emptiness, in which the sensation of ‘immense’ is felt through the absence of matter,\textsuperscript{42} so do transparent forms or mirrored surfaces suggest to immateriality as an effect of dissolution in the adjacent space.

To exemplify, I recall two paradigmatic cases: “Cloud Gate” (2004-06) and “Sky Mirror” (2006/2018) by Anish Kapoor.


\textsuperscript{41} The old testament refers to the marine monster in two passages: Jn 2:1; Jo:41

\textsuperscript{42} Although in perceivable terms not visible, we know rationally that air is also matter, made up of atoms, in gaseous state.
The first, “Cloud Gate” (2004-06)\(^\text{43}\), one of the most successful public sculptures installed in Millennium Park in Chicago, was inspired by mercury and formally results in an immense cupula in the shape of a bean, whose curved surface made of mirrored stainless steel, reflects the sky and adjacent buildings.

The resulting effect in “Sky Mirror” (2006/2018)\(^\text{44}\) is similar, in that the structure is connected to a parabolic antenna whose mirrored surfaces (concave and convex), reflect the surrounding space and transform perception into a kaleidoscopic game. One of the most well-known examples of this series, with an 11-metre diameter mirror and weighing 23 tonnes, can be found at the Rockefeller Center.

While rare in classical sculpture, the use of mirrored surfaces emerged during the modernist era, with “La Muse Endormie” (1910), “Maiastra” (1910-12), or “Loiseaux dans l’Espace” by Constantin Brancusi (1876-1957) and with “Forme uniche della contuinuità nelle spazio” by futurist sculptor Umberto Boccioni (1882-1916). However, it is above all in the contemporary era that polished and mirrored surfaces became more common in sculpture, for example with “Balloon dog” (1994-2000)\(^\text{45}\) or “Balloon rabbit” (2005-2010) by Jeff Koons (1955).  

Conceived for interior spaces, the works of Brancusi, Boccioni and Jeff Koons contrast directly with the public sculpture of Anish Kapoor, whose scale exponentiates the multiplying effect of the reflected images in the surrounding space.

To conclude on this theme, I would like to reference the series “Phase-of-nothingness” (1969-2012) to which Japanese sculptor Nobuo Sekine (1942) dedicated himself for 40 years; although it may fit in with the spirit of the Mono-\(\text{ba}\)\(^\text{46}\) movement, due to the serial

\(^{43}\) “Cloud Gate” - stainless steel, (Height) 10,06m X (Width) 12,802m X (Length) 20,117m, (Weight) 110 Tons, [stainless steel 10,06m (Height) X 12,802m (Width) x 20,117m, (Length), 110 T (Weight)] Chicago, 2004-06. Cloud Gate in Millennium Park. Retrieved access 20 August 2018, from https://www.cityofchicago.org/city/en/depts/dca/supp_info/chicago_s_publicart_cloudgateinmillenniumpark.html  


\(^{46}\) The Mono-\(\text{ba}\) movement took place in Japan from 1968-75 and accented the presentation of natural or industrial materials such as rock, soil, paper, cotton, steel, paraffin, in similar fashion to arte povera, minimalismo or western land art. Nobuo Sekine Phase of nothingness. Retrieved access
aspect of the work and its rhetorical plinth (similar to Brancusi), it suggests a metanarrative meditation on the genealogy of sculpture.\footnote{The process seems to have been adopted by Michel HEIZER (1944), namely in “Adjacent, against, upon” (1976), by placing informal rocks upon orthogonal plinths. Public Art Archive – Making public art more public - Michael Heizer Adjacent, Against, Upon Seattle, Washington. Retrieved access 20 August 2018, from http://www.publicartarchive.org/work/adjacent-against-upon; Adjacent, Against, Upon Michael Heizer, retrieved access 20 August 2018, from https://www.youtube.com/watch?v=hM8TWFzk8B4}

Designed for the exterior, this series consists of the appropriation of a naturally oblong rock placed upon a prismatic plinth, quadrangular in shape, and covered in mirrored stainless steel.

From the dialectic of dichotomies, rough/polished, natural/industrial etc., apart from being conceptually interesting, it is visually surprising because, as the plinth reflects the surrounding landscape, the spectator perceives the rock as if it were in a state of levitation.

While the problem of the dematerialization of art came about through the ambit of conceptual art during the nineteen-sixties, the truth is that contemporary sculpture has, so far throughout this century, manifested a larger fascination for immateriality.

One could say that the sculpture that has always been characterized by immateriality, has also dreamed, reciprocally, of the utopian ideal of forgoing matter, and to become present in itself. Although this circumstance only occurs with digital sculpture, in augmented reality or virtual environment, the truth is that that narrative is advancing and only time will tell us what shape it is likely to take.

Bibliography


Maderuelo, Javier. (1994). *La pérdida del pedestal*. Madrid: Circulo de Bellas Artes,


Meyer, Franz et.al. (1986) “La nouvelle sculpture des annés soixante”, *in, Qu'est-ce que C'est la Sculpture Moderne*. Paris: Centre Geoges Pompidou, Musée d'art Moderne, pp., 305-317


Electronic Addresses:

Adjacent, Against, Upon Michael Heizer. Retrieved access 20 August 2018, from https://www.youtube.com/watch?v=hM8TWFzk8B4


Constantin Brancusi Quotes. Retrieved access 9 August 2018, from https://www.brainyquote.com/authors/constantin_brancusi


Orchard, Karin. (2014). “1980’s - Reconstruction of Merzbau at Tate Modern”. Retrieved access 14 February 2014, from http://www.youtube.com/watch?v=4cF2Qb4bNm0 . ISSN 1753-9854


