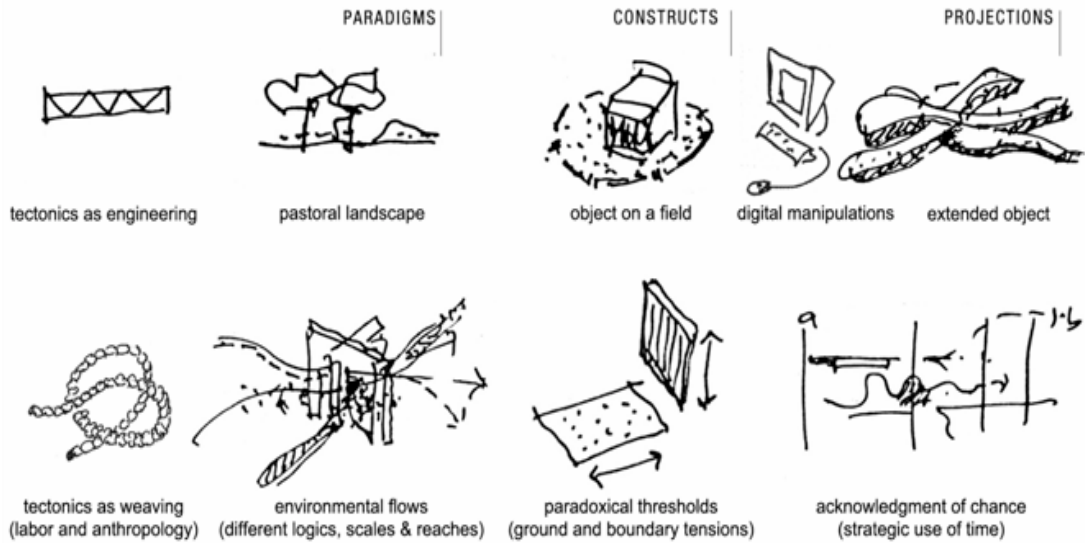
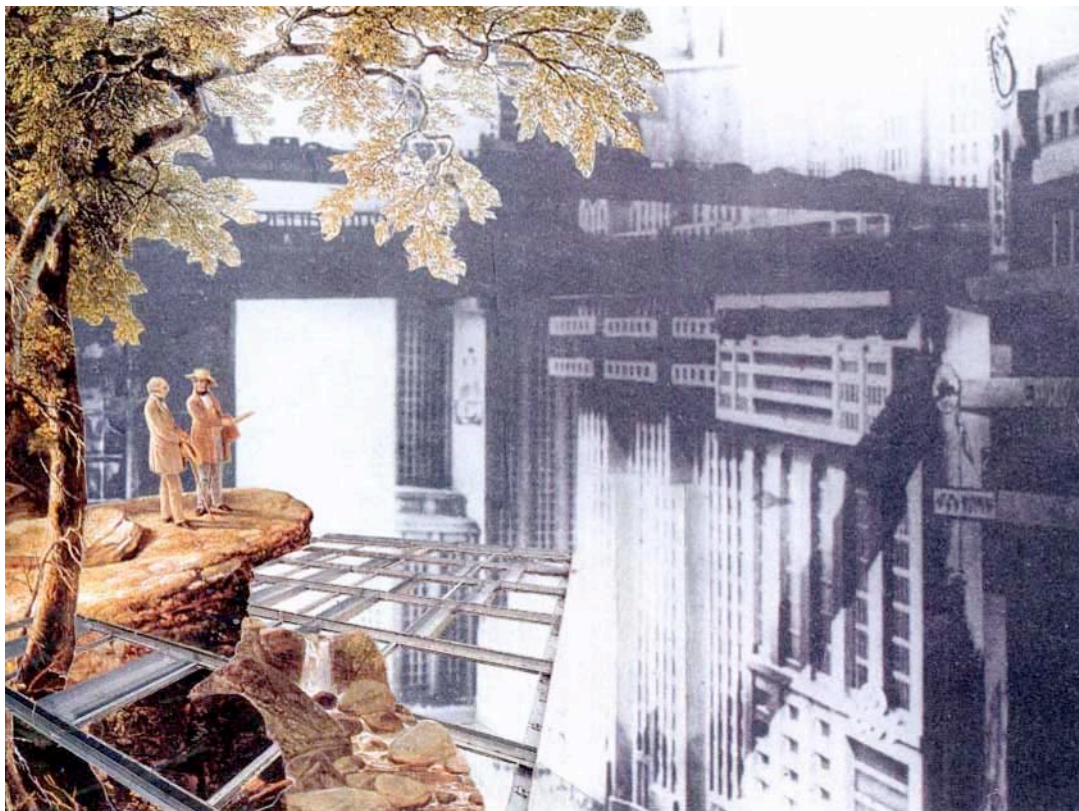


MODERNIST OBJECT



ENVIRONMENTAL APPARATUS

## Infrastructural (Sublime) Apparatuses



*mythical opposites / constructing a positive support for nature in the city*

Sandro Marpillero  
**Infrastructural (Sublime) Apparatuses**

1.

The notion of the Sublime constituted a key moment in the formation of modernist aesthetics, corresponding to the attempt of giving form to natural phenomena so powerful as to defy representation. A sense of nature's potency at the same time threatens a subject, yet also allows the re-assertion of his power through the correlation between visual and logical registers. As a mode of aesthetic experience, sublimity is nearly overwhelming, an experience of finitude in the face of infinitude –yet crucially, at the end, mastery is restored reasserting rationality. Through the juxtaposition between a human figure and a landscape background, the represented subject assumes the role of model for rational humanity, reasserting identity at the very moment in which it would appear to be threatened.<sup>1</sup>

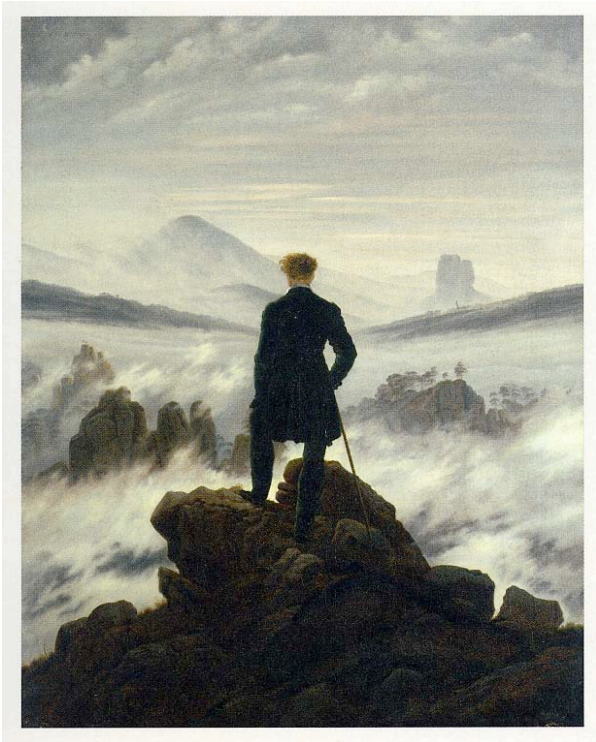
The painters of the “Hudson River School” performed an important role in the construction of New York's urban culture, establishing a relationship between the sublimity of the American landscape's grand scale, resonant with an already established romantic tradition, and its potential for domestication through industrial development. Thomas Cole, Fredrick Church, Asher Durand, and others both celebrated the infinite availability of natural resources alluded to by depictions of the remote American West, and the utilization of nature through the intervention of culture. They represented the region's pristine Adirondacks and Catskills valleys in similar ways as the Rocky Mountains, portraying through awe-inspiring imagery of untainted wilderness an idealized outlook on their sites, often produced by collage-ing partial views of different locales.

Collectively, the works of this first American “School” of painting put this idealization at the service of gaining control over that which the distant horizon of a sublime West depicted as a limitless extension, yet also as infinite exploitable resource. Not by chance, the patrons of the works by the Hudson River School of painting were an emerging elite of New York City industrialists, establishing their new cultural identity and aspirations of socio-political power by identifying themselves with the privileged position of observers over this regional landscape scenery. The painters, on their part, choose to repress in

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<sup>1</sup> This is the only footnote to my text, for two reasons:

- a) The above paragraph is a combination of paraphrases and unqualified quotations from a vast literature on the topic, which is impossible to properly acknowledge. A path into this critical web is offered by Marco De Michelis, “The Sublime is Now” in Marco De Michelis, ed. *The Sublime is Now*. Milano: Skira 2008. 29-39.
- b) In the condition of contemporary “Google Culture” each of the key terms or works mentioned after this introductory paragraph can be found online. Tracing paths connecting one of these words with any and/or all the others is open to each reader's initiative. I encourage such initiative, for each and every time this text will be read.



above: Caspar David Friedrich, *Wanderer above the Sea of Fog*, c. 1818  
below: Thomas Cole, *View of the Round-top in the Catskill Mountains*, 1865



aesthetic terms an already visible tension between culture and nature, setting up a new way of perceiving and conceiving the relationship between city and country, infrastructures and environment. Their representations of Hudson Valley's landscape presupposed its condition of availability to utilitarian uses through a seamless apparition of industrial machinery in pacified rural settings, fostering the process of this land's domestication.

The notion of the Sublime acted in this process as both ideological foundation for, and moral counterpoint to, the establishment of a new pastoral aesthetic for the role of landscape in the industrial city. The Hudson River School of painting opened the way to the invention of a modernist landscape paradigm, outgrowing the awe in front of a grandiloquent and primitive nature through the promotion of socio-technical progress, and its beneficial effects on urban life. Pastoral representations took place alongside the emerging celebration of engineering accomplishments, establishing rational mastery over the landscape, and the progressive replacement of natural wonders with purely utilitarian constructs. Technology's potential for development, with no apparent obstacles to its growth, re-incarnated the notion of the sublime as substance and horizon in the formation of urban landscapes.

2.

Central Park is the paradigmatic project through which to examine the American pastoral landscape's encounter with the modern city, and the complex manifestations of such encounter in the heart of Manhattan's gridiron. As artifact, Central Park constructed its site and the modes of perceiving nature in the city, engaging the public within a set of relations and interconnections that could not be isolated from the city grid, nor the multitude of buildings defining its boundaries. The scale of the Park's infrastructure is as significant as its natural features. Engineering feats for water management were concealed under the immediately visible natural surface, and frequent east-west crossroads were depressed below the pedestrian paths, enhancing long vistas across the landscape. The Park constituted an idealized foreground operating, in the consciousness of all its users, like a reservoir of natural energies to be contained by the power of the city, as a complement to, and compensation for, the demands imposed on inhabitants by urban development.

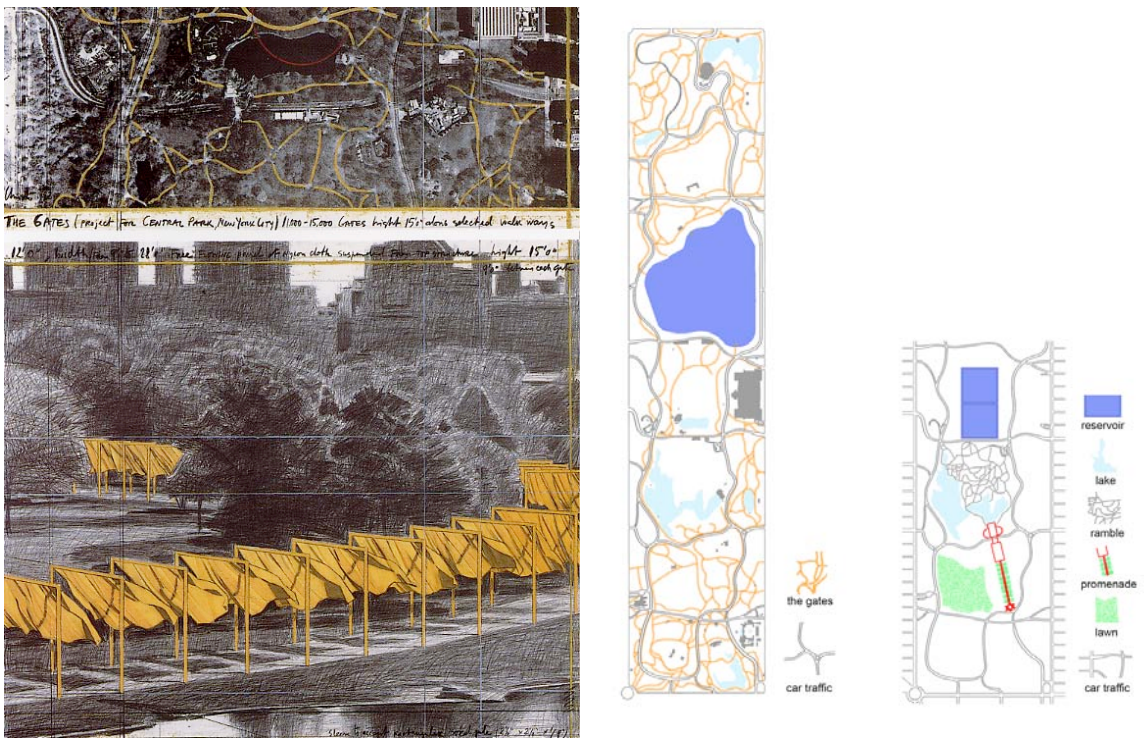
Central Park played a fundamental role in the modernist reincarnation of a romantic notion of the Sublime through the firm establishment of the role of infrastructure in urban economies. In the city surrounding the Park, bridges, subway lines, and port constructions, provided a vast array of examples of a new technological wonders as expressions of the modern industrial city. The scale of the city's multiple metropolitan networks harnessed forces that could have threatened individual citizens with their immediate and/or remote power. These constructions imbued urban culture with a vast reservoir of unconscious energy, towards the proper re-deployment of a sublime sensibility. Yet, this re-assertion of a (super)human power of reason over natural





above: Frederick Law Olmstead, *Greensward Plan (Central Park, NYC)*, 1858

below: Christo and Jeanne-Claude, *The Gates*, Central Park, New York, from 1979 to February 12-27, 2005



“Unquestionably, *The Gates* offered memorable images to millions of visitors, as pairs of bright poles held identically saffron colored, fluctuating banners of woven plastic fabric, against the park’s vegetation and/or white snow-covered grounds, frozen ponds and intensely blue sky. By taking on the beauty of a public space with 23 miles of walkways over an area of 843 acres, this installation of 7,500 gates fits Rosalind Krauss’s definition of a “marked site,” suspended as it is between landscape and not-landscape. Yet this modality of art making also suppresses the potency of Olmsted and Vaux’s vision of complex urban heterogeneity, by maintaining itself within the confines of a 19<sup>th</sup>-century picturesque sensibility.”

Sandro Marpillero, “Art as Landscape as Architecture,” *Lotus International 128*, 2006

resources induced enduring forms of dependency from the power of industrial and corporate organizations.

The significance of Central Park resides in effecting the paradoxical inversion of roles between nature and the city's technologies of control through the mediation of its pastoral landscape, supported by the infrastructural systems that made it possible. This domesticated vision of nature invoked the skyline as its substitutive sublime horizon, installing nature in a context that allowed its enjoyment as an effect of human artifice. The sublimity of a mythical West was replaced by that of the urban technologies embodied by metropolitan constructs, whereby the city's skyscrapers would become mountains, and electric lights a metaphorical forest in restless motion.

The repeated powerful experience of confronting these achievements in a state of both comfort and wonder has consolidated the social perception of the city to which we are still accustomed. The relationship, between 19<sup>th</sup> century's ideals about nature and the 20<sup>th</sup> century's utilitarian modes of developing new urban conditions, continues until today to emotionally affect the aestheticized ways in which configuration of future urban living are being projected. Visual images of social appeasement play a pre-eminent role in the enduring fascination for promises of urban development, supported by the complementary role of domesticated foregrounds and sublime horizons. Built environments, natural backgrounds, and sunset skies are assembled in accordance with an aesthetic paradigm which the Hudson River School of painting contributed to crystallize in the culture of New York.

3.

I am suggesting to open up this schematically traced genealogy linking a painterly tradition to the establishment of the notion of infrastructural sublime, which acted in support of landscape's installation in the modernist city. To do so, I will focus here on three works belonging to the late 20<sup>th</sup> and early 21<sup>st</sup> century trajectory of environmental art. I will interpret the sculptural interventions in New York City produced by three artists who engaged urban subjects in relation with their perception and experience of the city, mapping strategies that position the Hudson River not in a pictorial frame, but understand it as an urban infrastructure. This conceptual shift establishes a very important framework for the disciplines of urban design and landscape architecture, suggesting the creation of public spaces for the post-industrial city, along the lines traced by the emerging practice of Landscape Urbanism.

The public space executed on the edge of Manhattan twenty years ago by Mary Miss, and the installations along the Hudson River of projects by Robert Smithson and Olafur Eliasson in the past five years, offer paradigmatic references to explore different categories of intervention in the post-industrial city. They position a subject in the urban landscape and/or in relationship with technological artifacts, engaging the city's waterfront, harbor, and bridges, in ways that inscribe the Hudson River in the context of other metropolitan infrastructures and ecological regions, such as the Hudson's watershed.

As opposed to representations of reality stemming from painting, which tend to produce idealized situations suspended in-between virtual space and frozen time, these works of sculpture assert their presence through direct bodily experience, focusing on the space in which works are placed, their relationship with larger scales and processes, and the perception of time inherent to their observers' experience. In different ways, these works redirect the sublime sensibility with which environmental sculpture during the 1970s had approached deserts, dried lakes, atomic bomb test sites, industrial dumps, etc., yet bringing it to challenge the assumptions embodied by modernist categorical juxtapositions such as subject/object, figure/ground, architecture/landscape, etc.. Their expansion of the field of sculpture has also opened up areas of design practice corresponding to a more complex system of relationships existing in-between, yet exceeding the conventions of such dualistic modernist pairings.

4.

Mary Miss has explored since the early 1970s the physical and psychological engagement of a subject with a given site through site-specific constructions, which intensify visceral perceptions generated by their spatial conditions. Both in her sculptural and photographic work, Miss has challenged the notion of a naturalized ground, exploring different ways in which a subject's sense of stability finds itself to rely on provisional conditions that need to be constructed over time, allowing to both expose and interrogate one's placement in space. Her investment in a site's complexity allows the relationship between multiple layers of perceptual resonance to induce potent modes of individual engagement. Her interest for the constructed conditions of the ground has extended from earlier exploration in the open land to more specific investigations about the urban context.

Miss was among the first sculptors to produce work permanently placed in the public realm without resorting to the installation of an object or monument. At the end of the 1980s, she realized "The South Cove" (1983-88) in Battery Park City, offering to the public of New York City the opportunity to directly experience the threshold between urban fabric and its post-industrial waterfront landscape. This public sculpture establishes a critical relationship with a new portion of the city, built ex-novo on a landfill that extended downtown Manhattan to the outer edge of its pre-existing piers. Battery Park City, promoted as the new model of American urban design throughout the 1990s, was based on an idealized image of the 19<sup>th</sup> century city, with building disposed along axes and geometrically shaped voids, to form urban blocks that extended the street patterns of the existing city. Solid footprints outlined view corridors between urban blocks according to a figure/ground plan, establishing a pictorial relationship with the waterfront. The buildings' traditional materials define the edge of a Promenade styled with replicas of cast-iron lamp-posts, mid-century wood benches, and bent metal balustrades.

As opposed to this nostalgic re-enactment of civic pride, Miss established a direct yet disjunctive relationship with the city's maritime tradition. "The South Cove" defines multiple strategies for ground making at the edge of the island, constructing several site-specific situations that offer the terrain for a complex cultural and physical response to





above and below: Mary Miss, *South Cove* (Battery Park City, NYC), 1984-87





occupying their unique urban setting. Different structures, realized with multiple material assemblies of concrete piers and wood decking, steel frames and grilles around an artificial island, modulate degrees of tactile nearness to the water or establish long vistas on the Hudson Bay. A wood decking that coils back from the water's edge promotes both nearness to the water and a backward glance to a raised platform that offers views of the river's estuary and the Statue of Liberty. This overlook is shaped similarly yet in counterpoint to Liberty's crown, from which tourists usually gain a centralized panoramic view on the harbor.

Each spectator is thus directed to actively use the power of this site's forms, materials, and perceptual set-ups, to construct her/his own compelling narrative plot about the city's post-industrial situation, oscillating between tactile and visual registers, and resonating with spatio-temporal associations. This experiential oscillation between subject and ground undermines the stability of the new buildings' and urban blocks' figures and their supposedly rational modes of operation, allowing for the interference of deeper urban traces to impact on the supposed transparency of the act of vision. Rather than imagining the city as an object composed of objects, solidly implanted onto the voids of streets and open spaces contained by definite limits and ruled by purely visual and/or functional logics, this approach understands the city as a field in tension among heterogeneous publics and their discourses, belonging to different perceptual registers of operation.

5.

Robert Smithson's posthumous installation, entitled "Floating Island: To Travel Around Manhattan." was realized in 2005, 35 years after its original conception in sketch form. Paradoxically, this long gestation benefited the work's poignant commentary on the city's relationship with the Hudson River, which had significantly changed since the 1970s, when it was a still active port. The work consisted of a hypothetical reconstruction of a fragment of Manhattan's original landscape, prior to the realization of Central Park, displaced from the grid of the island's streets and avenues beyond its outer perimeter of ex-industrial piers. This small fragment of nature was placed in a ready-made steel barge pulled around the perimeter of the island by a very small tugboat. The speed and direction of the bay's water flow, affected by the dynamics of tidal movement at different times and locations, impacted the supposedly functional relationship between this floating landscape installation and the equipment that was empowered to guide its display. The variability of currents interacted with the scheduled appearances along the city's edge, transforming the conventional chain of hierarchies between passive nature and active machinery, into a dance of unpredictable effects.

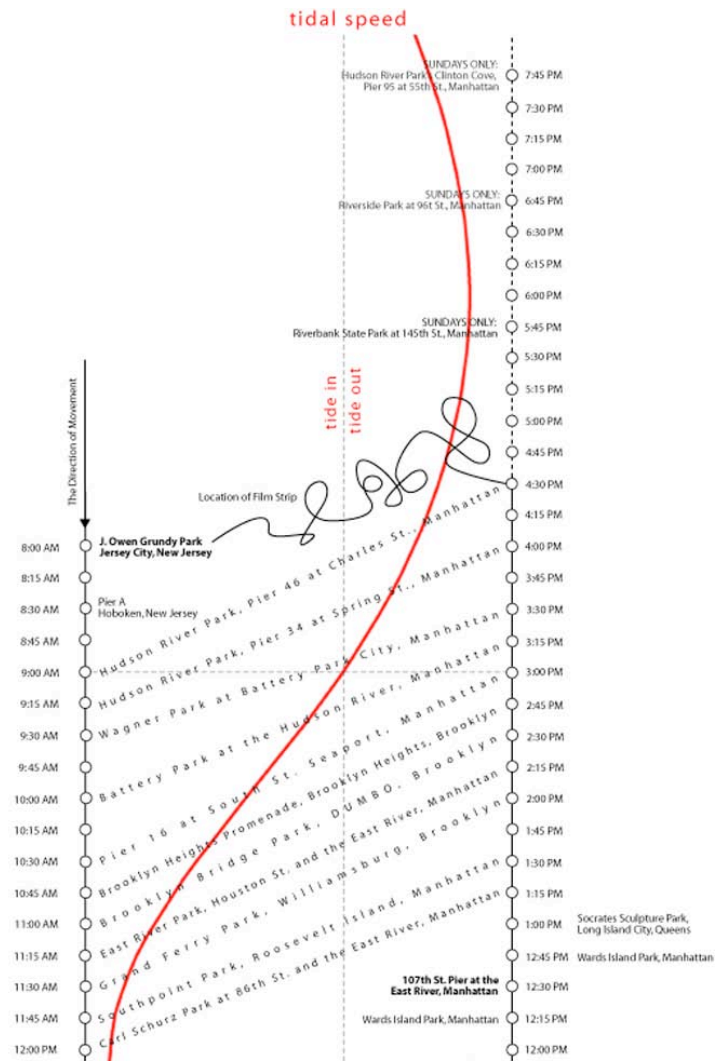
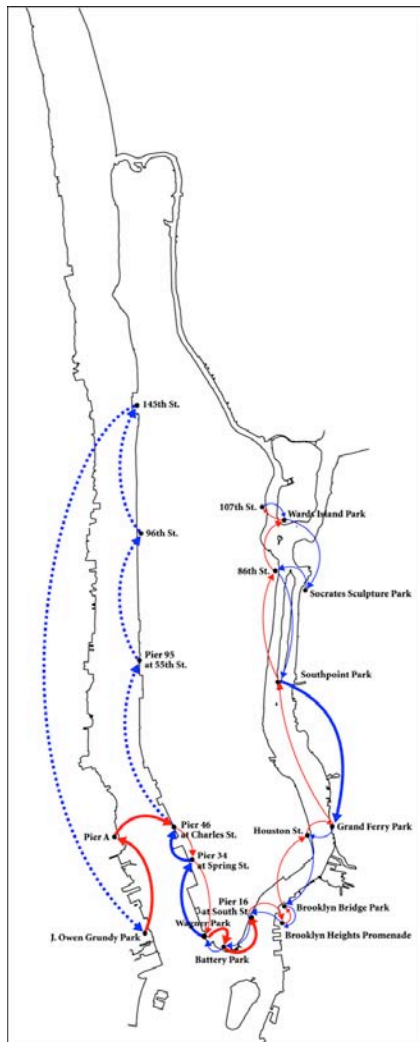
This unstable relationship between a native landscape and a piece of equipment in front of the city's post-industrial waterfront radically challenged both the import of the Hudson River's 19<sup>th</sup> century depictions of its banks as pastoral scenery, and the role played by Central Park in the romantic foundation of urban infrastructures. Smithson's work produced a conceptual displacement between a desire to contain a site's remote conditions and the capacity to control its context of reception, by both linking and distancing them from each other. An observer could follow the movements of this strange



above left: Robert Smithson, *Spiral Jetty*, 1970

above right: Robert Smithson, *Floating Island to Travel Around Manhattan Island*, 1970-2005

below: Diagrams of itinerary, September 17-25, 2005 (left) and tidal speed in relation to itinerary (right)





above: Robert Smithson, *Floating Island*, (image taken 09/20/2015)  
below: Olafur Eliasson, *The Waterfalls (Governors' Island)*, June 26-October 13, 2008





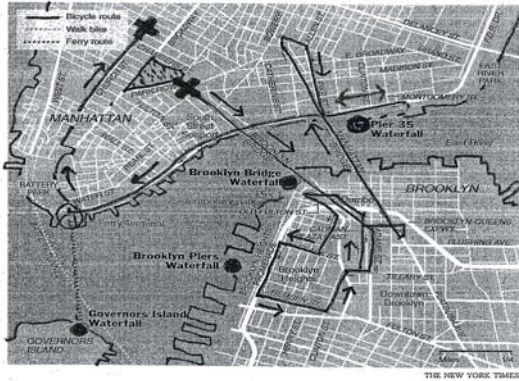
tugboat-landscape-barge assembly, while being confined by the city's limited points of his/her access to the edge. This work made tangible Smithson's notion of entropy in the urban landscape, by exposing and amplifying the dynamics of the site's spatial conditions, as a tool for the registration of effects posited by the passage of time. This mode of thinking recasts the notion of the sublime by separating it from any possibility of idealized representations, in terms of how the radical contingency of an observer's point of view, could reach towards an understanding of geological formations and global ecologies.

The "Floating Island" brings attention to larger historical timeframes referring to processes of creation and destruction of both landscape and city, prompting awareness about the role of chance in conceiving a productive relationship with historical and geographical dimensions. The conceptual mobility of this framing also shifts the work's visual paradigm from pictorial to cinematic, acknowledging that the traces of a mutable landscape are not containable within the limits of a park, nor the natural dynamics of a river's estuary can remain under the control of its utilitarian conversion. This cinematic framework opposes the appeal of conventional representations of city and landscape through consumable vistas, by introducing instead, in a spectator's narrative construct about the city, visible and invisible dimensions of nature put in a dialectical tension about the role of a subject's imaginary formations.

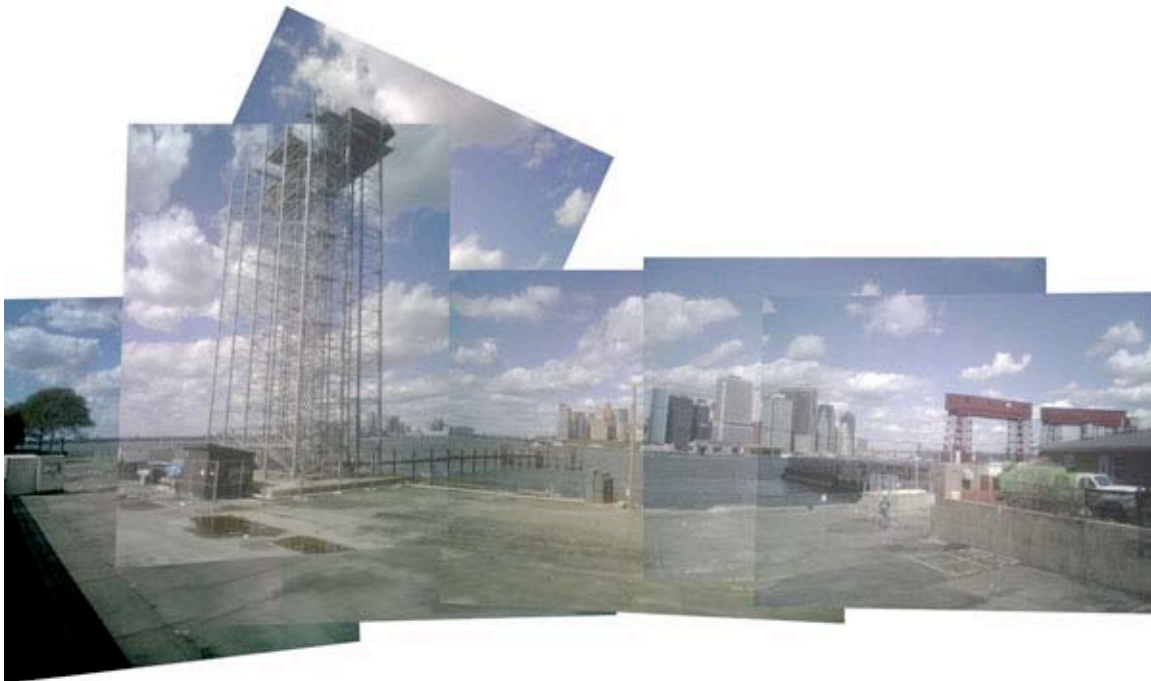
The work of Smithson introduces a further moment of conceptual doubt in the oscillation between figure and ground effected by Miss in "The South Cove," by exploring through the notion of entropy the relationship between the negative poles of such paired modernist terms. This moment of doubt interrogates the role of work and site through their negative formation of a not-figure, in the push-and-pull relation of the hybrid tugboat-landscape-barge, and a not-ground, in the watery regime of the Hudson River estuary. Through this conceptual dialectic, the consideration of time introduces a dynamic factor in the relationships between a subject/figure and his/her perception of partial objects/grounds, in such a way as to acknowledge the role of imaginary formations in a subject's displacement of their pairing, and the provisional settlement between their relative logics.

6.

The question of a productive relationship between an environmentally-inflected notion of site and a new understanding of the role of time in urban spaces is central in the work of Olafur Eliasson. By explicitly recreating natural phenomena through technological artifice, he has explored the limits of cultural formations stemming from acts of perceiving a landscape or vice-versa, how natural phenomena are framed by cultural assumptions. His work challenges the core of the aesthetic genealogy outlined above, that gives to the city its stable identity through the way in which nature has been incorporated into its social fabric. Eliasson's systematic interrogation about the imaginary relationship between a subject and natural phenomena effects a potent critique of the notion of the sublime, stressing the conceptual role of limited yet precise interventions, in addressing the contemporary city. This is where his work introduces the notion of apparatus, as a



above left: Map provided by the NYC DoT with marked bicycle paths and four locations of *The Waterfalls*  
above right and middle: Olafur Eliasson, *The Waterfalls* (Governors Island)  
bottom: Olafur Eliasson, *The Waterfalls* (East River)



hybrid assemblage that stages complex and overlapping processes, redirecting attention towards environmental flows. In Eliasson's environmental apparatuses time is both exactly measurable and dependent on atmospheric or circumstantial conditions, positioning its perception into larger social and ecological orders.

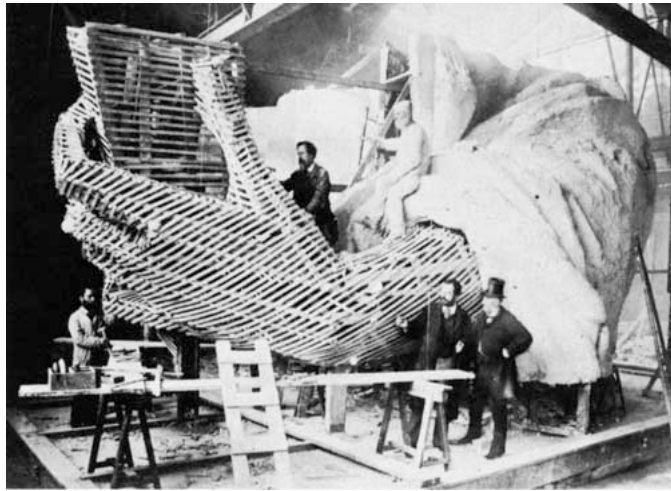
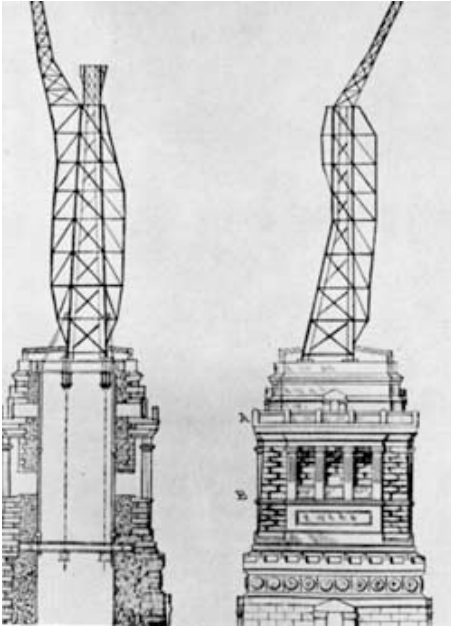
Eliasson's multiple installation entitled "The Waterfalls" (2008) set up a complex relationship with the city and the river, further pushing Miss's sculptural critique of the iconic role performed by the Statue of Liberty. Eliasson exposed four immense scaffolds, supporting monumental waterfalls placed in various locations along the East River, each recycling the water at its base, countering the logic whereby Gustave Eiffel's hidden structural trusses support the bronze panels of the human figure by Auguste Bartholdi, dominating the entry to New York's harbor. Instead of addressing the Hudson Bay in the terms set up by the city's and Nation's symbol of promised freedom, Eliasson's waterfalls rhetorically put on display what is required to achieve such colossal visibility, taking on the question of the relationship between technology and nature, as a revelation of how urban infrastructure works.

Eliasson had already produced inventories of sublimely high natural waterfalls in remote locations, highlighting through the use of matrixes the cross-relationships between their climatic conditions, geological substrates, and heights of drop. Also, he had intervened on rivers by introducing coloring agents to propel un-natural figurations in their flows, or reversed the direction of cascading streams by pumping water back to the top of a set of overlapping metal trays. Alongside the installation of "The Waterfalls," the Museum of Modern Art exhibited several limited experiments about the perception of other water-related phenomena, in which parameters of gravity, humidity, lighting, and definition of virtual geometric solids with artificial mist would immerse spectators in unexpected perceptual experiences. Yet with "The Waterfalls" the relationship between art, environment, and the city acquired a new resonance.

The four separate locations of "The Waterfalls," disposed between the East River and the Hudson Bay not only multiplied the experimental set-ups afforded by the Museum's gallery, but also related the work to the ongoing transformations of the city by installing three of its pieces into sites for which new types of urban public space have already been built, or will be soon realized. The Brooklyn Bridge Park has reclaimed the abandoned piers below the overlook of Brooklyn Heights, as of Spring 2010; Governors' Island will make accessible a previous military base close to the tip of Manhattan, making it into a recreational destination; the East River Promenade will transform spaces underneath the highway that used to cut off the Financial District from the city's edge. The key aspect of all these three pieces of the overall artwork by Eliasson is that they matched the size of the fourth one, which was measuring the distance between the water's edge and the roadway at the anchorage of the Brooklyn Bridge.

The NYC Department of Traffic took the opportunity suggested by these multiple locations of "The Waterfalls" to launch its own emerging program about limiting car traffic in the city by transforming, during the time of Eliasson's installation, portions of current streets into bike paths. A rider could find his/her way by using a map with





above left: Gustave Eiffel, *Structure for the Statue of Liberty, New York, 1881*

above right: Frederic Auguste Bartholdi, *Plaster Cast for the Hand of the Statue of Liberty, 1880*

below: Olafur Eliasson, *The Waterfalls (Brooklyn Bridger), 2008*



recommended directions through downtown Manhattan or through Brooklyn, following specially installed signage, orientation lines and ribbons of blue paint applied on selected streets' surfaces. S/he would reach privileged viewpoints on each of the work's four pieces, all of which were never visible together at the same time. These markings and the partial views afforded by their paths' destinations produced a new type of urban peripatetic experience, offering a mobile engagement with the city's infrastructure to the benefit of an alternative mode of private transportation.

The relationship between the city and its water, understood both through the use of, and as an urban infrastructure itself, also allowed a spectator to reposition her/himself within the regional scale of the Hudson River. The size of the four pieces, perceived from a distance and/or the public spaces below them, individually and collectively suggested to establish a mental connection with a visit to Niagara Falls. This exploration of the city's harbor offered a urban counterpoint to this ultimate sublime destination of touristic consumption, by conflating water, technology, and urban history. Niagara Falls are in fact located at the furthest reach of the Erie Canal, the 19<sup>th</sup> Century engineering feat that extended the Hudson River's navigable waters beyond the reach of its tidal fluctuations at Albany (Capital of New York State). The Erie Canal's fifty locks cut through more than three hundred and fifty miles of Adirondacks and Catskills valleys, establishing the first commercial route that connected New York City to the Great Lakes and the riches of the American Mid-West and Canada, significantly contributing to the launch of the city's phenomenal development before the introduction of railroad systems.

7.

The shift effected by these three works of Miss, Smithson, and Eliasson point towards a more direct engagement with complex postindustrial urban conditions, re-examining the city's relationship with the waterfront, inscribing the Hudson River in a regional scale of phenomena that stretch across space and time. All three works recast the notion of the sublime by reframing iconic sculptural elements and heroic engineering artifacts belonging to the modernist city, such as the Statue of Liberty, Central Park, and the Brooklyn Bridge. They suggest a different approach to the relationship between wo/man and nature, observer and landscape, citizen and urban infrastructures, positing a more complex interaction between a contemporary subject and the objects of his/her perception, by acknowledging the effects of cultural formations, desires, and unconscious projections on his/her psychological and technical engagement in/with them.

This approach not only challenges the romantic tradition in painting, as it was filtered through the Hudson River School, but also the metaphors that established in the field of urban design functional similarities between a person, a machine, and the city. Rather than recurring to these literal metaphors, these works put forth a paradigm of multi-scalar interventions on existing conditions that weave together heterogeneous elements from the point of view of the spatial and temporal performance of the forces animating them. As limited interventions, they qualify the notion of environmental apparatus, acting as carefully designed probes within the complex circuitry of dynamic urban transformations and processes, by introducing spatial, temporal, and technological feed-back loops.

These works institute uncertain timelines and offer situations with open-ended decision-making processes, establishing privileged relationships between a participant to the aesthetic experience and the multiplicity of techniques structuring such experience. Interpreted through the notion of environmental apparatus, they challenge modernist metaphors of similarity between geometrical, mechanical, and gravitational spaces, to be measured through chronometric time. Rather, they substitute these modernist imports with topological analogs, uncertain timelines, and more fluid possibilities, enabling the co-presence of operational logics that are remote to each other within the same space, acknowledging different rhythms in the source and destination of the flows that they engage. These rhythms reach a moment in which they can share a situated framework of experience, notwithstanding their internal and mutual gaps, resulting in a hybrid constellation.

As a conceptual analog to the contemporary city, the notion of environmental apparatus allows for the assemblage of motivations and narrative structures to converge from remote lines of resonance, constructing physical and mental thresholds towards larger scales and longer historical cycles. This establishment of disjunctive relationship between a subject, a site, and other locations suggests new ways of mapping the diffused condition of contemporary cities, as a series of variously scaled exchanges across and through the built environment, in its processes of formation and disruption. This conceptual opening up of inhabited, cultivated, or abandoned landscapes allows raising further questions about how to intervene in the post-industrial city, by redefining the cultural conventions through which visible and non-visible processes inform environmental concerns.

The three works by Miss, Smithson, and Eliasson introduced above suggest a useful range of strategies that revisit the notion of the sublime through an engagement of urban infrastructures, introducing instead the notion of environmental apparatus. They allow to understand the city as a dynamic interpenetration between what is inside and what is outside of it, what is a city and what is the river which traverses it, once these dualities are cast in metropolitan and regional scales of operation. Interrogating the notion of the sublime through these contemporary works of sculpture, not only frames in different terms the large infrastructural traces of the New York City Region that were produced by the Hudson River valley's industrial development, and now informing most of its post-industrial landscapes, but also opens them up for multiple interpretation and modes of design intervention.

This text is the English translation of my contribution to the book: Alberto Bertagna, Ed., *Paesaggi Fatti ad Arte (Art-Made Landscapes)*. Macerata: Quodlibet Studio, 2010

On the cover page:

Sandro Marpillero, *Environmental Apparatus Diagram*, 2004

Linda Pollak, *Don't Sentimentalize Outdoor Spaces – mythical opposites / constructing a positive ground for nature in the city*, 1990