

**Alexander Calder, Collaborative Abstraction, and Public Space**

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## **Abstract**

This dissertation examines the sources for and significance of the American artist Alexander Calder's interest in abstract art for public space. I focus upon how and to what ends Calder (1898-1976) collaborated to create abstract art for various public spaces such as modern museums, gardens, public expositions, campuses and plazas, from his first fulfillment of commissions for abstract works in the mid-1930s until the end of his life in 1976. The designs that these collaborations brought about are geographically dispersed, and many have been dismantled, lost or decontextualized by repositioning or changes to their environments; some were unrealized. Scholarship on these designs and efforts has been concentrated in studies of one- to two-decade periods in Calder's career; his links to specific countries and regions; and in descriptions that consider his principal sculptural forms, such as mobiles and stabiles, in isolation. I reframe Calder's large-scale, site-specific works in this study by emphasizing their links to collaborative relationships that grew from and affected Calder's interests in social ideals, modern architecture and urban design.

Each chapter of my dissertation examines an interrelated set of collaborations that fostered key evolutions in the form of Calder's site-specific and public work and in the procedures and materials that underlay it. Chapter One describes how Calder's first commissions for abstract work reflected and fostered his patrons' interests in the social dimensions of modern architecture in mid-1930s America. Chapter Two examines how

Calder's relationships with and effect upon the Museum of Modern Art's curators and trustees related to his interests in expanding the scale and architectural and social potential of his sculpture from the late 1930s to the end of World War II. My third chapter examines how the logistical complexities inherent to Calder's 1940s and 1950s commissions by an international group of architects and organizers of public events affected his approach to public commissions. In my fourth chapter, I analyze key differences between Calder's late-career commissions for a range of urban and social contexts and their implications for his approach to his own final commissions during the ascendance of postmodernist site-specific and public work.

For Brendan, Samuel and Helena.  
Thank you for your infinite love, encouragement and inspiration.

# Alexander Calder, Collaborative Abstraction, and Public Space

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## Introduction

In 1968 and 1969, in his studio and an industrial foundry in France's rural Loire Valley, the American artist Alexander Calder (1898-1976) designed and supervised the fabrication of a 42-ton abstract steel sculpture for the plaza of a newly constructed county government complex in the town of Grand Rapids, Michigan. The sculpture's name, *La Grande Vitesse*, translating to "The Great Swiftess," is a play on the town's name. The sculpture's various arched, sloped and curved elements seem to undulate, and take on dramatically opposed appearances from different vantage points. As had been his practice for decades, Calder designed the work as a small model, which he referred to by the French name, *maquette*, and worked with a foundry to enlarge it into a patchwork of thick-plate steel components bolted together into intersecting planes and arches. After completion they were assembled, vetted and then disassembled and loaded onto ten train cars. They went on, by sea, inland canals and highways to Grand Rapids. Once installed, the sculpture (painted strawberry red at Calder's request) contrasted sharply with the black and white modern buildings and portions of freeway overpasses visible from the plaza, and the gothic, approximately 90-year-old former City Hall. From some vantages it framed vistas of the city, and from others its muscular arches disappeared, and the work resembled an immense winged creature in repose. [figs. 1-2]

Calder had been developing stationary sculptures that conjured up motion and seemed to transform themselves from different vantage points since the 1930s. He called these works *stables*. [fig. 3] This name had been provided by the artist Jean Arp, and evolved from the word *mobile*, meaning both “moveable” and “motive,” which Calder adopted for his moving sculptures in 1930, at the suggestion of Marcel Duchamp. [fig. 4] Although Calder had created two even taller stables for Montreal and Mexico City in 1967 and 1968, at the formal dedication of *La Grande Vitesse*, reporters and dignitaries emphasized the uniqueness of his stable for Grand Rapids. In tonnage, this was Calder’s largest work, and the asymmetrical, sprawling horizontal distribution of its components permitted it to introduce a new form of experience, and new incentives to circulate through the heart of Grand Rapids – an area that had been created through a major “renewal” program designed by the eminent planner John Paul Jones.<sup>1</sup> The dedication program and reportage illustrated the contrasting appearances of the work from different vantages, and its dramatic interplay with its surrounds.<sup>2</sup> They also characterized the work as “historic” because it was the first “civic sculpture” to be funded by the National Endowment for the Arts’ Works of Art in Public Places Program, and because it was realized through joint federal and private efforts: \$84,900 in private funds were raised to make up the difference between Calder’s fee and the NEA’s \$45,000 grant.<sup>3</sup>

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<sup>1</sup> Garret Ellison, “The Architect: How a New York Consultant Sold Grand Rapids on Urban Renewal,” *MLive.com*, May 20, 2014. Last accessed April 27, 2016.  
[http://blog.mlive.com/grpress/news\\_impact/print.html?entry=/2014/05/urban\\_renewal\\_jones.html](http://blog.mlive.com/grpress/news_impact/print.html?entry=/2014/05/urban_renewal_jones.html).

<sup>2</sup> “The Dedication of ‘La Grande Vitesse’ by Alexander Calder, Vandenburg Center, Grand Rapids, Michigan, Saturday, June 14, 1969,” Correspondence File, “Calder Project, Grand Rapids MI, 1969,” 5 of 6, Perls Galleries records.

<sup>3</sup> “The Dedication of ‘La Grande Vitesse’ by Alexander Calder,” 12 and Jon Halvorsen, “City and Kent Officially Get Calder’s Work,” *Grand Rapids Press*, June 15, 1969, 1.

Calder's statements about the stabile at the dedication took a different tack. In response to a question about his first impressions of the installed work, he said, "I am not moved." When pressed for elaboration, explained that he had "been moved" when the project was *first* suggested.<sup>4</sup> With these comments, Calder hinted that his public art was the product of a well-honed process; judging from the effect of *La Grande Vitesse*, a process that permitted him to design an artistic form from tons of steel, to engineer it, to predict how it would affect its site and, by appearing to morph into different shapes as viewers traversed the site, to affect pedestrians' awareness of their own movements.

Calder's allusion to this process at the dedication of *La Grande Vitesse* reflects a larger set of comments he had been making about his approach to commissions since the early 1960s, and which he would continue to offer in interviews in the 1970s, when he was at the height of his career in public art. Initially, he explained that he had long believed that it was best to design work, even smaller pieces, for a specific site, and that public commissions gave him an opportunity to work on a large scale and presented engineering challenges that he enjoyed.<sup>5</sup> In interviews in the mid and late 1960s, when his speculatively-made works of approximately 20 feet in height and larger commissions were displayed worldwide, Calder commented on his many friends who had designed

<sup>4</sup> Halvorsen, "Calder 'Unmoved' by Stabile," *Grand Rapids Press*, June 14, 1969, 1.

<sup>5</sup> Geoffrey Hellman, "Onward and Upward with the Arts: Calder Revisited," *New Yorker* 36 (October 22, 1960), 163-164, 167-172, 175-178, in Marla Prather and Alexander S.C. Rower, *Alexander Calder 1898-1976* (Washington, D.C. and New Haven, Conn.: Smithsonian and Yale University Press, 1998), 279; Katherine Kuh, "Interview with Alexander Calder," in *The Artist's Voice: Talks with Seventeen Artists* (New York: Harper and Row, 1962). Last accessed January 12, 2016. <http://calder.org/life/system/downloads/1962-Artists-Voice.pdf>. The Kuh interview occurred soon after he realized a 30-ton, 40-foot steel plate work entitled *Teodelapio* (1962) in the medieval town of Spoleto, Italy, his first stabile that was scaled and situated in such a way as to encapsulate and reorganize large swaths of public space. *Teodelapio* is described in Chapter Three.

paradigmatic architecture and public spaces and played roles in his social life, creative experiments, and commissions.<sup>6</sup> By the early 1970s, when Calder was developing some of his largest and most complex public commissions to date, he elaborated upon his role in designing public space, explaining that his work had remedial effects on many forms of public space, from airports to plazas, and claiming that it was “backwards” for architects to design such spaces without first consulting artists who would produce work for them.<sup>7</sup> Cumulatively, these comments suggested that, throughout his career, Calder’s personal contacts had encouraged him to develop increasingly large and complex abstract artworks for distinctive architectural settings, putting him on a trajectory to not only receive commissions for public spaces, but also to play a critical role in how these spaces were designed and affected public life.

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This dissertation examines the sources for and significance of Calder’s interest in abstract art for public space – the interest that he stressed by repeatedly citing the collaborations in which he partook, by describing his impressions of spaces slated for public art, and by opining about what sorts of interactions should be more common in developing public art. Specifically, I focus upon how and why, over the course of four decades, Calder collaborated to create abstract art for various public spaces such as

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<sup>6</sup> See, for example, Calder’s references to the architects Paul Nelson, Oscar Niemeyer, Lucio Costa, Rino Levi, Eliot Noyes and Marcel Breuer in *Calder: An Autobiography with Pictures* (New York: Pantheon Books, 1966), 154-58, 163, 169, 176, 188, 198, 240-42, 247, 254 and to Noyes, Breuer and Mathias Goeritz in Robert Osborn, “Calder’s International Monuments,” *Art in America* (March-April, 1969): 32-49.

<sup>7</sup> Maurice Bruzeau, “Alexander Calder, A Blacksmith in the Town,” *Revue Françoise des Telecommunications* (December 1973), in Carmen Giménez, et. al., *Alexander Calder: Gravity and Grace* (London: Phaidon, 2004), 55; Ted Morgan, “A Visit to Calder Kingdom,” *New York Times Magazine*, July 8, 1973, 32; Robert Osborn, “Calder’s International Monuments,” *Art in America* (March-April, 1969): 32-49.

modern museums, gardens, public expositions, campuses and plazas. These collaborations began in the mid-1930s, when Calder developed his first commissions for large-scale and site-specific abstract work, and continued until the end of his life in 1976, when he was renowned as a public artist and in the midst of two of his most complex and prominent public commissions.

The large non-figurative works that these collaborations brought about have heretofore been treated principally in studies of one- to two-decade periods in Calder's career; his links to specific countries and regions; and in descriptions that consider his principal forms, such as mobiles and stabiles, in isolation. I reframe Calder's large-scale, site-specific works in this study by emphasizing their links to collaborative relationships that grew from and affected Calder's interests in social ideals, modern architecture and urban design. My essential claim is that Calder's collaborations kept him close to these topics, and inspired him to evolve his formal, material and procedural approaches to stay at the forefront of efforts to develop public art over a forty-year period.

Calder's public works are at once immediately resonant and elusive. He produced more than 20 major commissions for public urban space between 1962 and the end of his life in 1976, and because many of his speculatively-produced works were sturdy, thick-plate steel pieces designed for display out-of-doors, they are also common in publicly-accessible spaces from government complexes to university campuses, museums and corporate headquarters.<sup>8</sup> However, his pivotal commissions are geographically dispersed,

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<sup>8</sup> Prather, 290-295; Osborn; Ilene Susan Fort, "Calder's *Hello Girls*: History of a Commission," in *Calder and Abstraction: From Avant-Garde to Iconic*, 106-119. Calder made over 300 "monumental works (meaning, according to their classification for the catalog raisonné, objects fabricated at an ironworks and designed for the outdoors)." Prather, 279. He would make 137 works at the Biémont Foundry near his home and studio in Saché, France, between 1962 and 1976. *Ibid.*, 281.

many have been altered or dismantled, and several important designs never came to fruition. For this reason, there is logistical complexity to attempting to analyze the relationship between Calder's oeuvre and the diffuse archival records of his commissions to answer the important questions that his own scattered and sometimes misleading recollections and statements raise about the origins and nature of his development as a public artist. For example: Did the relationships Calder developed in his early career with pivotal figures in the development of public institutions, events and sites affect his approaches to public art in the postwar years? How might such continuity implicate long-held conceptions about modernist art and architecture, and post-war commissions for abstract public art?

The case studies of Calder's approach to public space and commissions that I present in this dissertation are the result of research into a range of archives and resources, including many that have only become available to scholars since the 1990s and 2000s, such as digitized archive descriptions, photographic archives, finding aids, oral histories, exhibits and resource lists about the events and phenomena that related to Calder's public art; and non-digital archival collections that have only recently been organized and opened to scholars. This array of resources permitted me to compare Calder's correspondence with commissioners and collaborators, photographs of his commissions and site-specific works during fabrication and in their original contexts, and illustrations and written descriptions of events and sites central to contemporary debates about the social impact of abstract art. Comparing and analyzing this material provided the basis for this study. Doing so revealed that Calder's commissions and collaborations entailed nuanced and evolving dialogues about public art reflecting a range of historic

and intellectual approaches to the development of art and architecture while opening up avenues for him to achieve formal innovations and physical and social functions critical to his own career and the broader history of public space.

## **Review of the Literature**

### **Descriptions of Calder's Public Art From 1937 to 1976**

Calder's first public art project, and the first work which led him to discuss the effect of his work in a distinctive architectural and social context, was his *Mercury Fountain* of 1937. [fig. 5a] Calder designed the *Mercury Fountain* for the Spanish Pavilion of the 1937 Exposition Internationale des Arts et Techniques dans la Vie Moderne in Paris at the behest of the Pavilion's architect, Josep Lluís Sert. The *Mercury Fountain* was an ambitious design that reflected the work of Calder's own father, Alexander Stirling Calder (1870-1945), a career public artist who designed a major fountain for the Panama-Pacific Exposition held in San Francisco in 1915, when Calder was a teenager, and who was renowned for another fountain completed one decade later, his Swann Memorial Fountain (c. 1924) in Philadelphia's Logan Square.<sup>9</sup> [figs. 6-7] Like these fountains, the *Mercury Fountain* propelled liquid dynamically across the space above its basin, by pumping the liquid metal to the top of a series of interconnected, biomorphic, pitch-coated iron elements. It cascaded down them, and, prior to collecting in a mirror-like pool in the fountain's wide base, the mercury offset a mobile element

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<sup>9</sup> Joan Marter, "Alexander Calder's Stables: Monumental Public Sculpture in America," *American Art Journal* 11 no. 3 (July 1979), 81 and *idem.*, *Alexander Calder* (New York: Cambridge University Press, 1997), 8 and 87. See also Margaret Calder Hayes *Three Alexander Calders: A Family Memoir* (New York: Universe Books, 1987), 38-44.



consisting of rods topped with a bright red circle and “Almaden,” the name of a town known for its mercury mines, where an important Loyalist victory had recently occurred.<sup>10</sup> The fountain was a popular spectacle at the 1937 Exposition, and because attendees enjoyed watching coins float on the mercury, which is denser than many metals, it raised significant funds for the Spanish Pavilion’s Republican cause.<sup>11</sup>

The fountain, which was the first liquid-propelled version of a mobile, marked a new paradigm in Calder’s ability to apply his undergraduate education to his art. He attended the Stevens Institute of Technology from 1915 to 1919, and earned a degree in mechanical engineering. Calder initially pursued this education in hopes of developing a career that would be opposite to his father’s, wherein the pursuit of commissions necessitated an itinerant life. But after a series of dissatisfying jobs, he enrolled in classes at the Art Students League in 1923, and soon thereafter began to develop the creative implications of his interest in the travels and interactions of objects in space. As I describe in Chapter One, he did so initially with figurative work, including moving toys and a miniature circus; after what Calder claimed as a pivotal 1930 visit to Piet Mondrian’s studio, he developed this interest with his mobiles, stabiles and other abstract art. [figs. 8-9 and 3-4]

By publishing two descriptions of the *Mercury Fountain* shortly after its completion - in Stevens’ alumni newsletter and in the “Letters” section of the Massachusetts Institute of Technology’s *Technology Review* - Calder brought his

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<sup>10</sup> Calder coated the iron in pitch to prevent the mercury from corroding it.

<sup>11</sup> Calder, “Mercury Fountain,” *Stevens Indicator* 55 (May 1938), 7 and *idem.*, “Mercury Fountain,” *Technology Review* 40 (March 1938): 2-3, 7, in Phyllis Tuchman, “Alexander Calder’s Almadén Mercury Fountain,” *Marsyas* 16 (1972-3), 102-104. I discuss *Mercury Fountain* in greater detail in Chapter Two.

burgeoning practice of public and commissioned work into a practice of writing about his abstraction that first developed in the early 1930s.<sup>12</sup> The various moving works Calder developed in the late 1920s and early 1930s impressed the European avant-garde, and brought about compelling written descriptions. Fernand Léger, the cubist painter and pioneering avant-garde filmmaker who would be Calder's lifelong friend, wrote in the catalog to his 1931 exhibition at the Galerie Percier, Paris, "When I look at these new, transparent, objective, exact works, I think of Satie, Mondrian, Marcel Duchamp, Brancusi, Arp, those undisputed masters of inexpressible and silent beauty. Calder is of this line."<sup>13</sup> The following year Calder undertook to describe his process in *Abstraction-Création, Art Non Figuratif*, the journal of a society for non-figurative artists he was invited to join in June 1931:

How does art come into being? Out of volumes, motion, spaces carved out within the surrounding space, the universe. Out of different masses, tight, heavy, middling – achieved by variations of size and color. Out of directional line – vectors representing motion, velocity, acceleration, energy, etc. – lines which form significant angles and directions, making up one, or several totalities. Spaces and volumes, created by the slightest opposition to their mass, or penetrated by vectors, traversed by momentum. None of this is fixed. Each element can move, shift, or sway back and forth in a changing relation to each of the other elements in the universe.<sup>14</sup>

Whereas Calder's description of his abstraction emphasized his awareness of applied kinetics, and pointed to his interest in the universe as a model for his work, in his 1938 descriptions of *Mercury Fountain*, the artist evinced a new interest in describing

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<sup>12</sup> *Ibid.*

<sup>13</sup> Fernand Léger, "Erik Satie Illustrated by Calder," preface of *Alexander Calder: Volumes-Vecteurs-Densités: Dessins-Portraits* (Paris, Galerie Percier, 1931) in Carmen Giménez and Alexander S.C. Rower, *Alexander Calder: Gravity and Grace* (London: Phaidon, 2004), 65.

<sup>14</sup> Calder, "Comment realizer l'art?" *Abstraction-Création, Art Non Figuratif* 1 (1932): 6, in Marter, *Alexander Calder*, 112.

how local and historic context affected his design process.<sup>15</sup> He explained his interest in seeing the “sort of space” that his friend Miró had been given for his commission at the Spanish Pavilion, and his quick recognition of the other spaces there, including a “winding ramp” and a flight of stairs, “out in space,” as amenable to his own mobiles. He also described how the desire to “make a feature” commemorating the bravery of the town of Almaden led to his eventual commissioning by Sert, who decided he needed Calder’s services in order to achieve a mercury fountain that complemented his open pavilion and the other commissions in it. These included Picasso’s 11.5 by 25.5-foot *Guernica* and Miró’s 18 by 11-foot *The Reaper (Catalan Peasant in Revolt)*.<sup>16</sup> [figs. 5 a-b] Calder reported that, although Sert originally rejected his request to contribute a mobile to the Pavilion on the basis that he was not Spanish, he reversed course after realizing the inadequacy of the small fountain slated for the space. Calder also detailed how he collaborated with others working at the Pavilion to solve various problems, such as how to staunch the flow of the costly and limited reserve of mercury, and prevent its splattering.<sup>17</sup>

In the remainder of Calder’s lifetime the history of his public work was primarily encapsulated by displays of maquettes of his designs for commissions in retrospective exhibitions, and by photographs and films of the final works in-situ. In the catalog for Calder’s first museum retrospective, at the Museum of Modern Art (MoMA), in 1943-44, James Johnson Sweeney, Calder’s dear friend and a prominent art critic, designates the

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<sup>15</sup> Marter, *Alexander Calder*, 112.

<sup>16</sup> Calder, “Mercury Fountain,” *The Stevens Indicator*, 102-103.

<sup>17</sup> *Ibid.*, and “Mercury Fountain,” *Technology Review*, 101.

*Mercury Fountain* as the project through which “Calder achieved the first full mastery of his new idiom,” three-dimensional, open-form sculpture with a “spirit of play.” Although Sweeney posits that this “spirit of play won the public to [the fountain] as a glorified toy,” he also claims that the various complexities that Calder mastered in the commission gave him “the assurance to speak out boldly in the future.”<sup>18</sup> The 1968 Robert Osborn interview for *Art in America*, cited above, also includes numerous photographs of Calder’s publicly-displayed work and commissions from the mid-1960s. A small selection of Calder’s public commissions are illustrated in the “mobiles,” “stabiles,” and “mobile-stabiles” sections of the catalog for Calder’s 1964 retrospective at the Guggenheim Museum.<sup>19</sup> In the catalog for Whitney retrospective *Calder’s Universe*, which opened the month before Calder’s death in 1976, Jean Lipman provides some additional context for Calder’s approach to designing public work, and its political and aesthetic implications, in three distinct sections: “Innovative Projects,” which addresses Calder’s commissioned fountains, murals, and his designs for interiors, ranging from wall paper to acoustical panels; “Mobiles;” and “Stabiles.”<sup>20</sup>

### **Post-1976 Scholarship on Calder’s Public Art**

Joan Marter was the first scholar to explore the bases of Calder’s public art and its significance in the history of art and architecture. In articles and in two chapters of her

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<sup>18</sup> James Johnson Sweeney, *Alexander Calder* (New York: Museum of Modern Art, 1951). Revised monograph of 1943 exhibition catalog. Last accessed April 20, 2016.  
[http://calder.org/life/system/downloads/1951\\_Sweeney.P0352.PDF](http://calder.org/life/system/downloads/1951_Sweeney.P0352.PDF)

<sup>19</sup> Thomas Maria Messer, “Introduction,” in *Alexander Calder*. New York and Paris: Solomon R. Guggenheim Museum and Musée national d’art moderne, 1964. Last accessed April 1, 2016.  
<https://archive.org/details/alexandercalderr00solo>

<sup>20</sup> Jean Lipman, *Calder’s Universe* (New York: Whitney Museum of American Art, 1976), 184-86; 265-267 and 305-311.

1991 monograph on Calder – the most significant scholarly study of his career to that point – she approaches Calder’s long history of public art projects primarily by providing formal analyses that relate his work to major movements in art and architectural history.<sup>21</sup> She details the formal links between Calder’s “colossal” works of the 1960s and 70s (more than 20 works that exceeded 40 feet in length and were his largest and most prominent), his 1930s development of “architectural” stabiles, and his first large-scale works of the 1940s.<sup>22</sup> She also draws links between his technologically advanced approach to public sculpture and urban space and that of his father, as well as the approach of his grandfather, Alexander Milne Calder (1846-1923), another prominent sculptor, who designed the sculptural program of Philadelphia’s City Hall (1873-93), including its, “36-foot, 27-ton statue [of William Penn that] was the largest bronze ever cast in a native foundry and represented a technological advance in American sculpture of that period.”<sup>23</sup> [figs. 6-7, 10] While Marter reiterates Calder’s own notation of his friendships with architects and his international reputation as factors in his popularity amongst commissioners, she contextualizes them as part of two overarching quests: the modernist quest to integrate abstraction into public space, and efforts to foster public art complementary to the “geometric regularity and severity” of the “conservative”

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<sup>21</sup> Joan Marter, “Alexander Calder’s Stabiles: Monumental Public Sculpture in America,” 75-85; *idem.* “The Legacy of Alexander Calder,” *Sculpture Magazine* 17 no. 6 (July/August, 1998) Last accessed January 12, 2016. <http://www.sculpture.org/documents/scmag98/calder/sm-caldr.shtml>; *idem.*, “Calder as a Public Artist: 1940s and 1950s,” and “Late Years: Monumental Works,” in *Alexander Calder*, 202-256

<sup>22</sup> *Idem.*, “Alexander Calder’s Stabiles: Monumental Public Sculpture in America,” 85 and *idem.* *Alexander Calder*, 236-37.

<sup>23</sup> *Idem.*, “Alexander Calder’s Stabiles: Monumental Public Sculpture in America,” 81.

architectural “‘classicism’” of the postwar years.<sup>24</sup> Accordingly, she describes Calder’s public works as a testimony to his own “commitment to the monument in the contemporary urban landscape.”<sup>25</sup>

Subsequent thematic exhibitions and studies have illustrated how Calder’s numerous exposures to critical architectural spaces, to important commissioners, and to fellow commissioned artists were critical to his development of public art throughout his career. Eric Zafran has described how Calder’s concerted efforts to resettle in Connecticut in the mid-1930s, after ending a seven-year-long transatlantic experience, centered around gaining entrée with a group of critical proponents of modern art and architecture and provided an opportunity for him to create one of his largest mobiles to date, which was also one of his first site-specific pieces.<sup>26</sup> In the catalog of the 2004 exhibition *Calder/Miró* at the Phillips Collection and Fondation Beyeler, Oliver Wick describes how, from 1937 to 1947 (between their contemporaneous commissions for the Spanish Pavilion and the Terrace Plaza Hotel in Cincinnati) Calder and Miró’s “reciprocal respect” was strengthened by their mutual “tendency to monumentality and... awareness of lending aesthetic form to overall space,” but emphasizes that this interest was developed in parallel, but not collaboratively.<sup>27</sup> Mildred Glimcher, in the first

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<sup>24</sup> *Idem.*, *Alexander Calder*, 255 and *idem.*, “Alexander Calder’s Stables: Monumental Public Art in America,” 85.

<sup>25</sup> *Ibid.*

<sup>26</sup> Eric Zafran, “Friends and Patrons: James Thrall Soby and Eleanor Howland,” in *Calder in Connecticut* (Hartford: Wadsworth Atheneum, 2000), 46-61.

<sup>27</sup> Oliver Wick, “‘Je Vais t’Emporter en Amérique. Prépare-toi:’ A Long Road to Monumental Dimensions – Beyond Painting,” in *Calder/Miró*, ed. Elizabeth Hutton Turner and Wick *Miró* (Washington, D.C.: Philip Wilson Publishers in collaboration with the Phillips Collection and Fondation Beyeler, 2004), 55 and 81. In contrast to Wick’s emphasis on the artists’ parallel development of an aesthetic of monumentality, Elizabeth Turner explains in her essay in the same catalog that Calder’s relationship with Miró “opened a

examination of Calder's increasingly monumental-scale work of the 1950s, argues that his international connections and travel were fundamental to his ability to gain major architectural commissions, because they fostered his development of new forms and material procedures.<sup>28</sup>

Exhibitions that have emphasized Calder's larger-scale work and commemorations of pivotal commissions have also demonstrated that he interacted with collaborators and commissioners in nuanced and concerted ways. Alexander S.C. Rower, Calder's grandson and the head of the Calder Foundation, has described how Calder employed the enlargement techniques of his father and grandfather's workshops to design large-scale abstractions from the late 1930s, and also used maquettes to advertise his interest in large-scale commissions.<sup>29</sup> His essay, like commemorative volumes about major commissions, emphasizes that, despite Calder's early development of this method, he did not take a laissez-faire attitude towards enlargement, but instead retained an active role in fabricating large-scale work even after his technical staff gained its own expertise, and furthermore, enjoyed complex commissions as opportunities to increase his

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dialogue that permits us a glimpse of how artists form new avenues of creativity." "Calder and Miró: A New Space for the Imagination," 27.

<sup>28</sup> Mildred Glimcher, "Alexander Calder: Toward Monumentalism," *Alexander Calder: The 50s* (New York: Pace Wildenstein Gallery, 1995), 19. Turner has also focused on the impact of Calder's early internationalism, and argued that that Calder "reveled in the temporal and spatial dislocation of travel, telegraphy, industrial production, and flows of typographic and visual information," leading him to "eschew[ing] the School of Paris, [bringing] new tools into the studio, work[ing] in multiples and ma[king] only what [he] could carry away" to "reveal a creative genius that might otherwise have been relegated to the realm of commerce in America," "Paris: Capital of America," in Turner et al., *Americans in Paris, 1921-1931: Man Ray, Gerald Murphy, Stuart Davis and Alexander Calder* (Washington, D.C.: Counterpoint, 1996), 15 and 47.

<sup>29</sup> Alexander S.C. Rower, "Calder in Nature," in H. Peter Stern et al., *Calder: Storm King Art Center*, (Mountainville, N.Y: Storm King Art Center, 2003), 12-17.

knowledge about how to engineer his work, and permit it to function in public space.<sup>30</sup>

In the catalog of the 2013 Los Angeles County Museum of Art (LACMA) exhibition *Calder and Abstraction: From Avant-Garde to Iconic*, Harriet Senie argues that Calder's openness to his late commissioners' suggestions and interests were critical to his ability to create the first corpus of abstract "civic sculpture."<sup>31</sup> Sérgio Martins similarly explains that Calder's choice to donate *Black Lily* (1948), his largest hanging mobile to-date, to the Instituto de Arquitetos do Brasil in São Paulo is, "coincidentally or not [...] emblematic" of his many Brazilian architect friends' contemporary efforts to "refashion" the country "from above as a modern society," by developing monumental architecture instead of promoting "widespread assimilation of modernist architecture - " a "contradictory, but no less brilliant" approach to their mentor Le Corbusier's practice.<sup>32</sup>

The sources and functions of the ubiquity of Calder's work in public space have also been explored in recent scholarship. In his 2014 article "Unstable Motives: Propaganda, Politics, and the Late Work of Alexander Calder," Alex Taylor argues that Calder exhibited "contradictory expressions of allegiance and political dissent... vacillating between propaganda and dissent," in the course of designing public commissions, lending his work for public exhibition, and refusing to appear at certain

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<sup>30</sup> Yona Fisher, *El Sol Rojo* (Jerusalem: The Israel Museum, 1980) and Giovanni Carnadente, *Teodelapio: Alexander Calder* (Milan: Charta, 1996).

<sup>31</sup> Harriett Senie, "Calder's Public Art as Sculpture: The Realization of a Modernist Ideal," in Stephanie Barron et al., *Calder and Abstraction: From Avant-Garde to Iconic* (Los Angeles: Los Angeles County Museum of Art and Prestel USA, 2013), 136-149.

<sup>32</sup> Sérgio Martins, "Wind Chimes of Modernity: Calder's 1948 Trip to Brazil," in Achim Borchardt-Hume, et al., *Alexander Calder: Performing Sculpture* (New Have: Yale University Press, 2015), 60-61.



exhibitions of his work for political reasons.<sup>33</sup> For this reason, he claims that Calder's career "demonstrates the potential for abstraction to serve the most apparently opposed political motives."<sup>34</sup> Stephanie Barron of LACMA, who curated *Calder and Abstraction*, emphasizes, by contrast, how the ubiquity of Calder's work in public space, combined with the fact that "[f]or most of his career, he eschewed critical interpretation," functioned to detract from how Calder concertedly "upend[ed] the sculptural paradigm" and "challenge[d]" the traditions of monumental and figurative sculpture by "mov[ing] easily between seeming opposites," such as "the avant-garde and the iconic, the geometric and the organic, art and science."<sup>35</sup>

### **Assessments of Calder's Public Art in Surveys of Modern Sculpture**

Calder's public art has also played an important if dubious role in poststructuralist narratives about modernist and postmodernist art. As I detail in the final chapter of this dissertation, the late 1960s witnessed the advent of "postmodernist" sculpture, which, like Calder's prominent public work, was often large scale, site specific, and industrially produced. This phenomenon was driven and accompanied by claims that postmodernist art represented a new exploration of how sculpture interacted with spaces and audiences. Although Calder's industrially-produced, large-scale and often site-specific works were initially related to similar minimalist work, minimalists eschewed such associations, and asserted, conversely, that their work represented a radical break from modernism

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<sup>33</sup> Alex Taylor, "Unstable Motives: Propaganda, Politics, and the Late Work of Alexander Calder," *American Art* 26, no. 1 (March 2012), 27.

<sup>34</sup> *Ibid.*

<sup>35</sup> Stephanie Barron, "Time, Space and Moving Forms: Alexander Calder – Beyond the Beautiful," in *Calder and Abstraction: From Avant-Garde to Iconic*, 13.

generally.<sup>36</sup> Rosalind Krauss developed the notion of this radical break by insinuating that cultural conditions prior to the rise of postmodernism suppressed the sort of expansive and experimental approaches. In her 1979 article “Sculpture in the Expanded Field,” she argues that the phenomenon of artists creating large, site-specific installations, such as Robert Morris’ “architectural integers” and Robert Smithson’s earthworks, reflected their generation’s realization that it had “permission” to explore the fields that had bounded modernist sculpture since the beginning of the twentieth century.<sup>37</sup> [figs. 11-12] By contrast, she described the modernist prerogative as being the creation of “autonomous” work, and explained that it “began by about 1950 to be exhausted,” and that by the early 1960s modernist “sculpture had entered a categorical no-man’s land: it was what was on or in front of a building that was not the building, or what was in the landscape that was not the landscape.”<sup>38</sup>

Because Calder’s large publicly-displayed work is so common, it is still prominently characterized in opposition to such reciprocal interests, and instead as an example of modernist preoccupation with “autonomy.” For example, Miwon Kwon has argued that the history of postmodernist site-specific sculpture lacks “neat periodizing breaks,” and is characterized instead by the existence of “competing definitions.” Yet she

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<sup>36</sup> Hilton Kramer, “‘Primary Structures’ – the New Anonymity,” *The New York Times*, May 1, 1966, in James Meyer, *Minimalism: Themes and Movements* (London: Phaidon, 2000), 220; Mark Di Suvero, Donald Judd, Kynaston McShine, Robert Morris, Barbara Rose, “The New Sculpture,” transcript of a symposium on “Primary Structures,” the Jewish Museum, May 2, 1966, in Meyer, 220-222.

<sup>37</sup> Rosalind Krauss, “Sculpture in the Expanded Field,” *October* 8 (Spring 1979), 33-34.

<sup>38</sup> *Ibid.*, 36. Hal Foster describes minimalism similarly. “Andre turned to Alexander Rodchenko and Constantin Brancusi, Flavin to Vladimir Tatlin, and many others to Duchamp... In this way minimalism became one site of a general return to this avant-garde – a return that, with the force of the repressed, opened up the disciplinary order of late modernism. “The Crux of Minimalism,” in *The Return of the Real* (Cambridge, MA: MIT Press, 1996), 56.

provides a (remarkably unappealing) photograph of *La Grande Vitesse* to accompany her description of modernist art displayed in outdoor sites in the 1960s and 70s, wherein she explains the period's publicly-funded work was representative of "modernists'" "preoccup[ation]" with "the proper placement of the discrete art work so as to be enhanced and showcase its aesthetic qualities;" a characterization that does not reveal any inclination to consider whether this "preoccupation" was one of several, historically competing *modernist* approaches to the public realm.<sup>39</sup> The authors of the survey textbook *Art Since 1900* similarly explain that Calder's stabiles were "stolid."<sup>40</sup> While Alex Potts, in *The Sculptural Imagination: Figurative, Modern, Postmodern* argues that the history of modern sculpture is inseparable from the criticisms and reactions it provoked, the only role he gives Calder in this history is as the creator of "mobiles" that broke the "boredom barrier" of modernist sculpture – another comment that suppresses the public function of Calder's work, and characterizes it first and foremost as a signature form.<sup>41</sup>

Because my dissertation focuses upon how Calder's approaches to public space and art related to the actions and ideals of collectors, public audiences, bureaucrats and

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<sup>39</sup> Miwon Kwon, *One Place After Another: Site Specific Art and Locational Identity* (Cambridge: MIT Press, 2002), 73 and 63-64. Rosalind Krauss' *Passages in Modern Sculpture* also examined the history of modern sculpture in a non-teleological fashion, but emphasizes art viewing, not the networks involved in art-making. Rosalind Krauss, *Passages in Modern Sculpture* (Cambridge, MA: MIT Press, 1981).

<sup>40</sup> "1931b," Hal Foster, et. al., *Art Since 1900: Modernism, Postmodernism, Antimodernism* (London: Thames and Hudson, second edition, 2011).

<sup>41</sup> This comment seems to reflect the author's contention that the artist's other forms of sculpture failed to break the "boredom barrier," but may not implicate the majority of Calder's surviving works for public space. This is because the latter category of work is generally displayed outdoors, and Potts explains that focus of his study is modern sculpture designed to be viewed indoors, because the "set of problems" this work raises "has to be seen as existing in a dialectical relationship with the more public and monumentalizing values that come into play with large-scale modern work." Alex Potts, *The Sculptural Imagination: Figurative, Modernist, Minimalist* (New Haven: Yale University Press, 2000), 103 and 2.

critics, it has implications for studies that examine how social and political imperatives affected artists and the organizations that promote them, from periodicals to museums to governments (thereby challenging the notion that the reciprocity of postmodernist art constituted a radical break from the “autonomous” and “idealist” interests of modernist artists). This includes the books of Serge Guilbaut, Kristina Wilson and Amy Lyford, which explore the nuanced reciprocities between modernist practices and government policies, propaganda campaigns, and institutional collectors.<sup>42</sup> My dissertation also implicates social network-focused literature on architecture and urban planning that has shown that many of the practitioners Calder interacted or collaborated with, both inside and out of the context of his public art commissions, were committed to and often pivotal in experimental efforts to adapt and re-invent paradigmatic forms of art and architecture for public audiences and space.<sup>43</sup>

A recent example of such scholarship on the social dimension of radical innovation that has been a model for my study is Leah Dickerman’s essay for the catalog of the 2012 MoMA exhibition *Inventing Abstraction, 1910-1925*. In her essay, Dickerman argues that because the “reordering initiated by abstraction” entailed “an understanding of art not as illusion but as idea,” it was imbued with “a novel kind of

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<sup>42</sup> Serge Guilbaut, *How New York Stole the Idea of Modern Art: Abstract Expressionism, Freedom, and the Cold War* (Chicago: University of Chicago Press, 1985); Kristina Wilson, *The Modern Eye: Stieglitz, MoMA, and the Art of the Exhibition, 1925-1934* (New Haven: Yale University Press, 2009); Amy Lyford, *Isamu Noguchi’s Modernism: Neogtiating Race, Labor, and Nation 1930-1950* (Berkeley: University of California Press, 2013).

<sup>43</sup> See Barry Bergdol, ed., *Latin America in Construction: 1955-1985* (New York: MoMA, 2015); Sheila Crane, *Mediterranean Crossroads: Marseille and Modern Architecture* (University of Minnesota Press, 2012); Jean-François Lejeune, ed., *Cruelty & Utopia: Cities and Landscapes of Latin America* (New York: Princeton Architectural Press, 2005); and Styliane Philippou, “Nothing is Foreign, Strategies of Brazilianisation in Modern Brazilian Architecture,” in *Architecture and Identity*, ed. Peter Herrle and Erik Wegerhoff. Berlin: Verlag, 2008.

expansiveness:” there was a distinctly “social dimension” to its innovation; it fostered “cross-medium exchange;” and “counter[ed] the Romantic idea of the genius as an inspired loner.”<sup>44</sup> Dickerman describes the contours of these social “exchanges” by analyzing the ephemera that circulated around early abstraction, such as installation photographs, art journals, correspondence and other accounts of the aims, frustrations and conclusions of its inventors and audiences – the sorts of materials which I sought out and interpreted so as to better understand Calder’s public art.

### **Outline of This Dissertation**

My first task in this dissertation is to describe the catalysts for and implications of Calder’s first commissions as an abstract artist. In Chapter One, I examine how Calder obtained and developed his commissions, in the midst of resettling permanently in the United States after a seven-year-long transatlantic existence. Although, at the time of his repatriation, he was well regarded as a producer of abstract art in Europe, the cultural climate in America was distinctly more conservative. I detail how Calder insinuated himself with the most important American social networks for the development of avant-garde art and modern architecture, and argue that his commissions for these networks demonstrate his responsiveness to their members’ interests. It is critical to describe these commissions and interactions because they were formative to the artist’s future approach to the process of designing abstract art for public sites and audiences.

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<sup>44</sup> Leah Dickerman, “Inventing Abstraction,” in *Inventing Abstraction 1910-1925: How a Radical Idea Changed Modern Art* (New York: MoMA, 2012), 34, 32, 18, 29.

The subjects of my second chapter are the factors in and impact of Calder's relationships with curators and trustees at MoMA from the late 1930s to 1945. During this period, the artist's work was frequently developed and exhibited in parts of the museum, and in exhibitions that it staged, which bore a critical relationship to its self-described role as a public "laboratory" for the development of modern visual culture. I demonstrate how the distinctive mission and approach of MoMA's curators and its trustees provided critical opportunities for the display and development of Calder's sculpture. I focus in particular upon the implications of MoMA's "International Style" building, designed by American architects after European examples, and opened in 1939. It was the first such public-serving building in America, and its expansive but unadorned spaces, striking glass exterior and revolutionary modern sculpture garden became special sites of collaboration between Calder and MoMA curators that critically fostered his interest in expanding the scale and architectural and social potential of his mobile sculptures.

In Chapter Three I consider how Calder's prior experiences in producing abstract art commissions affected his role in postwar efforts to develop abstract monumental art. I describe how the relative ease of transporting Calder's mobiles and stabiles, and his embrace of new logistical challenges in developing public art commissions in an international arena, promoted his repeated access and exposure to paradigmatic forms of modern monumentality in South America, the United States and Europe. I argue that these experiences instilled in him an ambition to develop work that was not only displayed in, but had complex effects upon modern architecture and urban space. Because Calder's commissions during this period were out of step with the ideals for monumental

and monumental-scale abstract sculpture that many prominent critics and sculptors espoused, they also provided Calder with key insight into developing large-scale works.

The final chapter of my dissertation examines the evolution and legacy of Calder's largest and most prominent form of public commissions, the colossal stabiles and mobiles that occupy and affect large tracts of architectural and public space in urban plazas and atriums worldwide, and particularly in the United States and Europe. Because Calder's speculatively produced works designed for the outdoors also proliferated in public space in the 1960s and 70s, sweeping generalizations have often been made about the effect of Calder's work in public space during these years. In this chapter I reframe the nature of Calder's relationship to public space by carefully examining how he developed sequences of major commissions. The range of approaches that Calder took to materials, commissioners, and fabrication in these often overlapping projects suggests his responsiveness to distinct and varied urban and social contexts. I also examine how minimalist and technologically inflected postmodernist practices affected Calder's reputation, and, seemingly, his self-conception. I conclude with a close analysis of the innovations inherent to the designs of Calder's two final, posthumously-realized commissions, *Untitled* (1976), his monumental mobile for the National Gallery of Art in Washington, D.C., and *Mountains and Clouds* (1985-86) for the Hart Senate Office Building in Washington, D.C.

## CHAPTER ONE

### **“None of This is Fixed:” Calder’s First Commissions, the American Avant-Garde and the Mobilization of Abstraction for Public Space, 1934-36**

Calder’s lineage and the history of his career add significant complexity to any attempt to define the inception of his interest in public art. Public art was a constant in his life, as the grandson and son of two prominent neoclassical sculptors whose livelihood depended upon commissions for memorials, friezes, and fountains.<sup>1</sup> His father and grandfather’s most renowned commissions were focal points of public life; Calder’s grandfather spent twenty years (1873-1893) on the architectural sculpture of Philadelphia’s City Hall, which is topped by a 36-foot tall, 27-ton bronze statue of William Penn, and his father was the head sculptor of the Panama-Pacific International Exposition in San Francisco in 1915, as well as the designer of the Swann Memorial Fountain in Philadelphia’s Logan Circle (1924) [figs. 10, 6-7] Calder’s mother, Nanette Lederer Calder, was painter, trained, like his father, at the Pennsylvania Academy of Arts. When Calder finally decided to join the family profession and entered art school at the Art Students League in New York in 1923, his instructors there included George Luks and John Sloan, Ashcan School artists renowned for their immersion in and depictions of public life. [fig. 13] During his student days Calder also drew inspiration from various

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<sup>1</sup> Calder, *Autobiography*, 36-38; George Gurney, “Alexander Milne Calder: William Penn,” in Fairmount Park Association, *Sculpture of a City: Philadelphia’s Treasures in Bronze and Stone* (New York: 1974): 104-109 and Hayes, 106-114.



aspects of urban life.<sup>2</sup> He was assigned to cover the circus for the *National Police Gazette*, where he worked as an illustrator, and it became one of his preferred subjects.

[fig. 14]

When Calder traveled to Paris in 1926, following in the footsteps of both of his parents as well as thousands of other young artists enjoying the favorable exchange rate following the First World War, his actions quickly led to further exposure to artists who were inspired by, and sought to affect the public realm. In his early days in the city, Calder began producing wire portraits of friends and acquaintances, sometimes in the street itself.<sup>3</sup> He also developed a miniature circus of articulated wire performers and animals accentuated with wood, leather and cloth. [figs. 8 and 15-17] The performances of this circus, which he gave in his studios, were also premised on and affected by the presence of the public, as he invited and attracted eminent figures in Parisian art and culture, and occasionally requested audience participation.<sup>4</sup>

The circus performances brought Calder into contact for the first time with non-figurative artists who had given serious consideration to creating art for the public sphere, most notably, Piet Mondrian and Theo van Doesburg, the founders of Neoplasticism.

While these artists had initially agreed that Neoplasticism had critical applications to the

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<sup>2</sup> Joan Simon, "Alexander Calder: The Paris Years," in *Alexander Calder: The Paris Years, 1926-1933* (New York: Whitney Museum of American Art, 2008) 25. On Calder's illustrations for *The New York Times*, *Morning Telegraph*, *New York Herald*, the *Philadelphian*, and *New Masses*, see *ibid.*, 30-31.

<sup>3</sup> On Calder's wire portraits, see Barbra Zabel, *Calder's Portraits: A New Language* (Washington, D.C. Smithsonian Institution Scholarly Press, 2011). Calder's wire portraits were exhibited in group exhibitions in the U.S. and Europe: in 1928, at the Weyhe Gallery, and in 1929, at the Galerie Billiet-Pierre Vorns, Paris, and the Galerie Neumann-Nierendorf, Berlin.

<sup>4</sup> Annie Cohen-Solal explains, "Seizing on the aesthetic currents swirling around him" "in the midst of artistic ferment" in late 1920s Paris, Calder "[took] note of the main power centers and the most active moments, he put his encounters to good use, listened to others' advice, and tried out different options in his work." Annie Cohen-Solal, "Parisian Metamorphosis in Four Acts," in Simon, 221-22. See Simon, 41 and Marter, *Alexander Calder*, 60-62.

development of architecture and urban design, they had diverged on this issue by 1927, when Mondrian, in an abrupt reversal, concluded that it was impossible to synthesize Neoplasticism with architecture. It is likely that Calder had at least a glimmer of this debate, given the upbraiding he received from a fellow American in Paris, the architect Frederick Kiesler, for inviting Mondrian and van Doesburg to the same circus performance in 1930.<sup>5</sup>

By contrast to the contexts that were integral to his development of figurative wire caricatures and circus performances, Calder described the solitary space of his studio as the incubator of his abstraction. Beginning with 1936 letters to A.E. Gallatin, an American art collector, and in statements throughout the remainder of his life, Calder explained that he realized that he wanted to be an abstract artist in late 1930, after Mondrian visited his studio to witness a performance of his miniature circus and he reciprocated by visiting the painter at his own studio. Calder described this encounter as the moment when he comprehended abstract art for the first time, at the age of thirty-two, and as a “shock” that inspired him to take up abstraction.<sup>6</sup> Mondrian’s studio was a striking environment that he had designed in accordance with his theory that primary colors, black and white, could be arranged in “equilibrated relationships” expressing “the

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<sup>5</sup> Calder, *Autobiography*, 112-113. Mondrian wrote in “Home-Street-City” (1926), “The truly evolved human will no longer attempt to bring beauty, health or shelter to the city’s streets and parks by means of trees and flowers. *He will build healthy and beautiful cities by opposing buildings and empty spaces in an equilibrated way.* Then the outdoors will satisfy him as much as the interior.” Piet Mondrian, “Home-Street-City” (1926) in *The New Art, the New Life: The Collected Writings of Piet Mondrian*, ed. James S. Martin (New York: Harry Holtzman, 1986), 207. By 1927, Mondrian concluded that collaboration between painters and architects was not possible. See Yve-Alain Bois, “Mondrian and the Theory of Architecture,” *Assemblage* 4 (October 1987), 116; *idem.*, “1917,” in *Art Since 1900: Modernism, Antimodernism, Postmodernism*, ed. Yve-Alain Bois, Benjamin Buchloh, Hal Foster and Rosalind Krauss (New York: Thames and Hudson, 2004), 153.

<sup>6</sup> Alexander Calder, *Calder: An Autobiography with Pictures* (New York: Pantheon Books, 1966), 113 and Joan Marter, *Alexander Calder* (New York: Cambridge University Press, 1997), 103.

universal force that is within all things.”<sup>7</sup> [fig. 9] He had rigorously planned the color scheme of the space, and even painted the Victrola red. Calder was deeply impressed by an experimental area where the painter moved about pieces of colored cardboard, to test out future compositions. Reflecting his own interest in mechanics, physics and the interrelation of the two he had developed in his circus, he suggested that Mondrian set these pieces of painted cardboard into motion, in “different directions at different amplitudes - ”<sup>8</sup> which Mondrian immediately refused. This, as Calder explained, inspired him to undertake independent experimentation: “for two weeks or so, I painted very modest abstractions. At the end of this, I reverted to plastic work which was still abstract.”<sup>9</sup> [figs. 18-21]

There is no evidence that Calder participated in any collaborations to evolve the form or functions of his abstract sculpture in the remaining years of his transatlantic existence. But soon after he resettled in America his abstract sculpture took on new social and public functions as the result of his eager and consistent associations with a distinctive set of American patrons between 1933 and 1936. In this chapter, I argue that this new context for the production, exhibition and use of abstract sculpture was the basis for Calder’s interest in creating public abstract sculpture. I examine the critical interactions between Calder and arts patrons during this period, and demonstrate how they introduced new, collaborative forms of experimentation into Calder’s abstract art practice. This development reflected the critical role that self-consciously radical and

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<sup>7</sup> Piet Mondrian, “Home-Street-City,” 1926, in *The New Art, the New Life: The Collected Writings of Piet Mondrian*, ed. James S. Martin (New York: Harry Holtzman, 1986), 208.

<sup>8</sup> Calder to A.E. Gallatin, 1934, quoted in Marter, *Alexander Calder*, 104.

<sup>9</sup> Calder, *Autobiography*, 113.

experimental performances, in productions of avant-garde music and dance, as well as in social settings including masquerades and private salons, played in the activities and aspirations of Calder's new American patrons. These patrons' interests in collective social experimentation affected and influenced the first commissions that Calder produced for abstract art, and made his practice keenly responsive to specific sites and audiences. In short course, these commissions marked the dawning of his and others' recognition of his abstraction as a vital force in shaping public space, attitudes and actions.

### **Acting the Part: The Role of Social Performance in Calder's Reintegration into the American Art Scene as an Abstract Artist, 1933-34**

When Calder and his wife Louisa returned to the United States and began looking for a permanent home in 1933, he was widely recognized in Europe as a leading figure in the world of abstract art. Since almost immediately after his adoption of abstract art in 1930, the avant-garde had provided Calder with special support and praise for his abstract work. He first exhibited his abstractions, including paintings and sculptures in wood and wire, at the Galerie Percier, Paris, in late April and early May, 1931.<sup>10</sup> Soon thereafter, he joined the newly-formed association of non-figurative artists, *Abstraction-Création*, but also exhibited with their "rivals," the surrealists, including Joan Miró, whom he met and formed a friendship with in 1928. As described in the Introduction, Léger, in his contribution to the catalog of Calder's exhibition at Galerie Percier, positioned the American alongside "Satie, Mondrian, Marcel Duchamp, Brancusi, Arp, those undisputed

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<sup>10</sup> *Ibid.*, 114 and Marter, *Alexander Calder*, 104.

masters of inexpressible and silent beauty,” marveling, “He is 100 percent American. Satie and Champ are 100 percent French. How is it that they’ve met?”<sup>11</sup> [fig. 21] Later that year, during a visit to Calder’s studio, Marcel Duchamp, a pivotal figure in the development of abstract art and its implications, particularly dada and conceptual art, provided the name “mobile,” “a French pun referring to ‘motive’ and ‘motion,’” for Calder’s first motorized abstract sculptures.<sup>12</sup> [fig. 20] He also organized an exhibition of these works (for which he designed the invitation) at the Galerie Vignon in early 1932.<sup>13</sup> Another prominent abstract artist, Jean Arp, subsequently proposed the name “stables” for non-kinetic works that the sculptor developed to give a sense of movement when circumnavigated.<sup>14</sup>

Arnauld Pierre has described how the existence of Constructivist art and theory in French exhibition and journal culture provided a fertile terrain for Calder to refine his mobiles in the early 1930s, prior to re-settling in the United States. Constructivism was a form of abstraction with roots in Revolutionary Russia, and two of its most prominent developers, Aleksander Rodchenko and Vladimir Tatlin, had created famous prototypes of and proposals for moving sculpture and architecture. It is likely that Calder would have been aware of these through the publications *Abstraction-Création* and *Cahiers d’art* (featuring works and exposition by artists with whom he associated, such as Léger), and because two of his early abstract works were shown in an exhibition of Constructivist

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<sup>11</sup> Fernand Léger, introduction to *Alexander Calder: Volumes-Vecteurs-Densités: Dessins-Portraits*, Galerie Percier, Paris, April 27 – May 9, 1931, trans. Manus Sweeney, 1997, in Prather, 70.

<sup>12</sup> Prather, 71.

<sup>13</sup> “A Conversation with Alexander Calder,” *Art in America* 57 (July-August 1969), 31 in Marter, 113-15, Calder, *Autobiography*, 126-27.

<sup>14</sup> Calder, *Autobiography*, 130.

work in Paris in 1932. [figs. 22-24] Pierre argues that this exposure is a critical backdrop to Calder's "principle technical discovery," a "technique of articulated joints" for his suspended mobiles that developed "a sculpture based on equilibrium – something that had never been done by Rodchenko or Moholy-Nagy, for example."<sup>15</sup> [figs. 3 and 22] This technical discovery produced infinitely changeable interrelations between the elements of Calder's non-motorized mobiles, a quality that he emphasized in his descriptions of his work, such as the one he wrote for *Abstraction-Création* in 1932, wherein he explained that he strove for his work to reflect the manner in which "[e]ach element" of "the universe" "can move, shift or sway back in forth in a changing relation to each of the other elements."<sup>16</sup>

While Calder's knack for interpreting critical currents in avant-garde culture had fostered his success in Europe, when he chose to settle in the United States in 1933 he faced an audience with a dubious track record with regard to his recent work. In 1932, Calder had exhibited his abstract mobiles at the Julien Levy Gallery in New York. This was the first American exhibition of his mobiles, and its reception contrasted that of his exhibitions of abstract work abroad. Levy was irked by the fact that the electric motors of some of the motorized mobiles blew fuses in his gallery, prompting repairs that required an electrician to broach its new walls. Edward Allen Jewel postulated in the *New York Times* that the motorized works were at worst "cute," at best "more than just idle

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<sup>15</sup> Arnauld Pierre, "Painting and Working in the Abstract: Calder's Oeuvre and Constructive Art," in *Alexander Calder: The Paris Years, 1926-1933*, ed. Joan Simon. (New York: The Whitney Museum of American Art, 2008), 234.

<sup>16</sup> Calder, statement in *Abstraction, Création Art Non-Figuratif* 1 (1932), in Marter, *Alexander Calder*, 112.

diversion.”<sup>17</sup> Henry McBride also noted that Calder had been “quite adopted” by Paris, and “[t]here is no sense in lamenting [him]... as [an expatriate], since we cannot provide them with the sustenance necessary to [his] mental existences, and Paris can.”<sup>18</sup>

This tepid reception of Calder’s abstract work may have seemed particularly alarming for how it paled in comparison to the adulation his figurative work had received in prior exhibitions that Levy had facilitated. In 1929 and 1930, as a student leader of the Harvard Society for Contemporary Art – at that point one of the most advanced venues for the display of modern art in America – Levy and the Society’s co-founders, Eddie Warburg and Lincoln Kirstein, had included Calder in a group exhibition, and then provided him with a solo show of his wire sculpture. The Society also sponsored a circus performance which was attended by hundreds of eager spectators, including the Harvard alumnus Alfred H. Barr, the director of MoMA, which had been founded only one year prior.<sup>19</sup>

In actions that demonstrated his understanding of the gravity of the situation in which he now found himself, Calder took two critical steps to align himself as closely as possible with groups sympathetic to the activities and preoccupations of the European avant-garde when he returned to America in 1933. First, he reoriented from Levy’s gallery to that of Pierre Matisse, the son of Henri Matisse. This approach underscores

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<sup>17</sup> Edward Alden Jewell, “Alexander Calder’s Mobiles at the Julien Levy Gallery Suggest Majestic Swing Through Space,” *New York Times*, May 13, 1932, in Marter, 133.

<sup>18</sup> Henry McBride, “Sculpture that Moves May Be Art and May Be Machinery,” *New York Sun*, May 21, 1932, in Marter, *Alexander Calder*, 133.

<sup>19</sup> Although under the aegis of undergraduates, the Society was hardly amateurish: it was backed by Paul Sachs, and its organizers also drew from their experiences as the children of art collectors, and the beneficiaries of extended stays in Europe where they had pursued avant-garde art, to assemble shows “of some of the most advanced art of the day... [much of which] was too untraditional to be shown anywhere else in Boston, in either museums or commercial galleries.” Nicholas Fox Weber, *Patron Saints: Five Rebels Who Opened America to a New Art 1928-1943* (New York: Knopf, 1992), 88.

Calder's unique status; Matisse agreed to show his work, in spite of the fact that he did not at that time exhibit Americans, and focused instead on the so-called "School of Paris" (avant-garde artists based in the city), including Miró, Calder's dear friend since 1928.<sup>20</sup> Around the same time that Calder secured an early 1934 show at Matisse's gallery, he made another critical effort to become situated with the most significant American supporters of the European avant-garde by reaching out to the composer Virgil Thomson. Thomson's formation, like that of Calder, had also occurred in the context of the European avant-garde.<sup>21</sup> In early 1934, Calder sent an invitation to Thomson and his lover, the set designer Maurice Grosser, to attend a circus performance at the Park Avenue home of Huntington Sheldon, and, shortly thereafter, prevailed upon Thomson for tickets to the upcoming premiere of *Four Saints in Three Acts*, a revolutionary opera that the composer had been developing and performing in private performances and salons in Europe and America since the late 1920s.<sup>22</sup>

Calder could hardly have sought entrée to an event more critical to the promotion of avant garde culture in America. *Four Saints in Three Acts* set the nonsensical prose of Gertrude Stein to music, and would be sung by an all-black choir against an opulent stage set by the renowned artist and designer Florine Stettheimer at the Wadsworth Atheneum in Hartford, Connecticut, in February 1934. The premiere of the opera was one of the single-most anticipated events in American culture not only for the uniqueness of the

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<sup>20</sup> Marter, *Alexander Calder*, 132 and 141.

<sup>21</sup> The show commenced in April 1934; Calder began work on it during the "winter of 1933-4." *Ibid.*, 141.

<sup>22</sup> Calder to Thomson and Grosser, January 28, 1934, Box 29, Folder 13, MSS 29, The Papers of Virgil Thomson, Irving S. Gilmore Music Library, Yale University. Calder and Stein were also acquainted; he and Louisa visited Stein and Alice Toklas at their home in Paris in March 1932. Calder to Stein, March 9, 1932, Gertrude Stein and Alice B. Toklas Papers, Yale Collection of American Literature, Beinecke Rare Book and Manuscript Library, Yale University.



performance as theater, but also due to the fact that it occurred as the finale of the grand opening of the new Avery Memorial Building of the Wadsworth, which had recently been remade as the most modern museum space in the world.

As historian Eugene R. Gaddis explains, the premiere of *Four Saints in Three Acts* was “a pivotal moment in the history of modernism. It marked the confluence of European and American streams of modernity – in painting, architecture, and the performing arts.”<sup>23</sup> [figs. 25-26] Although its exterior matched that of the original buildings of the Atheneum, the country’s oldest public art institution, its interior was an inverted Bauhaus-style building, with complementarily modern engineering, partitions and lighting. The building’s theater was also the first to be installed in a museum building in the United States. On the occasion of the grand opening, the galleries of this revolutionary space displayed a Picasso exhibit unlike any previously assembled in America. *Four Saints in Three Acts* was performed as the grand finale of the Avery Memorial’s inauguration.

The critic Carl Van Vechten wrote, in a commentary published on programs for the six-week-long run of *Four Saints in Three Acts* at the 44<sup>th</sup> St. Theatre in New York, that it required of its viewers the same sort of “receptivity and openness” as a visit to a psychoanalyst. Attendees were encouraged to let go of conventional “demands” for a “plot.” The reward, explained Van Vechten, was in finding a new way to appreciate the combination of words and music in opera: “to compensate for the lack of story in the accepted sense, there is abundant action, action which is witty, beautiful, suggestive, and

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<sup>23</sup> Eugene Gaddis, *Magician of the Modern: Chick Austin and the Transformation of the Arts in America* (New York: Knopf, 2000), 3.

full of entrancing double meanings.”<sup>24</sup> Historian Nicholas Fox Webber explains that this goal, “a willingness to approach experience unarmed,” was at the heart of not only Thomson and Stein’s work, but also the most forward-thinking patrons of the arts in America. After the performance of Thompson’s opera at the inauguration of the Avery Memorial Building, the attendees rose from their seats and howled with excitement for an hour following curtain call; fifty years after the event, the eminent architect, historian and curator Philip Johnson recalled that at that moment Hartford felt like the “the navel of the world.”<sup>25</sup>

The recollection of this event that Calder gave in his autobiography is interesting for saying little about his relationship and interactions with Thomson, and focusing instead on how his own actions at the premiere mirrored those of several figures closest to the Atheneum’s brilliant young director, Chick Austin, who had been the driving force behind the watershed renovations to the museum’s physical structure and program, and its presentation of *Four Saints in Three Acts*. Austin’s achievements in Hartford were bound up in his reputation as a brilliant, boyish impresario whose proclivities had a major effect on social life around the Atheneum. Under his aegis, the museum hosted numerous events that reprised significant performative aspects of European avant-garde culture, both before and after the construction of the Avery Memorial Building. These included carnivals and other pageants which encouraged the more daring contingents of conservative Hartford society (the city was the insurance capital of America) to wear improbable costumes, and also attracted others who, like Austin, had experienced or

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<sup>24</sup> Carl Van Vechten, “How I listen to *Four Saints in Three Acts*,” (1934) in Weber, 228.

<sup>25</sup> Gaddis, 5.

knew of such highlights of transatlantic culture of the 1920s as Cole Porter's *Within the Quota*. This "American Ballet" had delighted audiences with its costumes and set, designed by the American writer and artist Gerald Murphy, which amplified the script's parody of American culture; the largest headline on the painting of a newspaper that constituted the backdrop to the performance read "Unknown Banker Buys Atlantic."<sup>26</sup>

This context helps explain Calder's later emphasis upon his own, generally outlandish, actions at the *Four Saints* premiere. He and his wife Louisa traveled to the event in their 1930 La Salle touring car. The car had a removable cloth top, but the couple arrived with it *open-topped*, despite some of the most frigid weather Connecticut experienced that February. Calder reported that they made little effort to obscure the uniqueness of their transit and the unusual vestments that it required; "all the clothes we could muster, including a yellow fisherman's shirt from Barcelona."<sup>27</sup> The Calders' unique entrance, which the artist recalled as drawing commentary from Eddie Warburg, situated them in the thick of the broader collective spectacle that the premiere of *Four Saints in Three Acts* catalyzed. As Gaddis reports, the event brought streams of eager audience members to Hartford in private rail coaches, airplanes, and transport as outlandish as a jeweled pogo-stick and one of Buckminster Fuller's teardrop-shaped Dymaxion Mobiles.<sup>28</sup> Calder and Louisa also participated in the second round of this spectacle, in the form of a lively after-party at the Austin home. Calder noted in his

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<sup>26</sup> Francesca Rose, "'Ultramodern' American Premieres in Paris: *Within the Quota* and *Ballet Mecanique*," in *A Transatlantic Avant-garde: American Artists in Paris, 1918-1939*, ed. Sophie Lévy and Christian Derouand, (Berkeley: University of California Press, 2003), 64.

<sup>27</sup> The weather on February 7, the day of the premiere, was "arctic," "four degrees at eight a.m., and, after rising to twenty-nine in the afternoon, would plummet to fifteen below zero overnight." Gaddis, 244 and Calder, *Autobiography*, 143 and 146.

<sup>28</sup> Gaddis, 244.

autobiography that even the home itself was designed in a highly theatrical manner, with a painted, illusionistic façade based on a photograph of an Italian villa that gave the residence a striking resemblance to “a stage set.”<sup>29</sup>

It is significant that the artist and his wife attended this event. While it is believed to have been the first meeting between Calder and Austin, the artist was familiar with many of the other attendees, including Thomson, Warburg, Levy, and Barr.<sup>30</sup> Like Calder, this group had consumed European avant-garde culture of the late 1920s and early 1930s. They, along with their fellow Harvard alumnus Henry-Russell Hitchcock, had been the foremost American promoters of avant-garde European art, architecture and dance. Austin had delivered a steady stream of avant-garde culture to conservative Hartford, ranging from the first show of Surrealist paintings in the United States to screenings of avant-garde cinema, performances of modern music, and lectures that made the city a locus of public knowledge about the most recent developments in European architecture.<sup>31</sup> Barr was the director of the then five-year-old Museum of Modern Art

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<sup>29</sup> Calder, *Autobiography*, 146.

<sup>30</sup> Calder’s description of his role at the after-party at the Austin house further underscored both his familiarity with Austin’s closest peers, and the ease with which he assumed a role in their social network. He described carrying a drunken Levy to a bedroom for recuperation, and noted that this had invoked Levy’s ire for decades. *Ibid.* and Julien Levy, *Memoir of an Art Gallery* (New York: Putnam, 1977), 142. Barr had known of Calder since at least the first year of his directorship at MoMA, when he attended the circus performance that Calder gave at Harvard. Barr’s first impression of Calder was clearly favorable; within less than a year, at the end of 1930, he included four of Calder’s wooden sculptures in “Painting and Sculpture by Living Americans” at MoMA.

<sup>31</sup> The Surrealism exhibition drew greater crowds than any prior exhibition at the Atheneum. Austin’s discussion of the show with a reporter from the *Hartford Times* was indicative of his goals as a museum director: “These pictures which you are going to see are chic. They are entertaining. They are of the moment. We do not have to take them too seriously to enjoy them. We need not demand necessarily that they be important. Many of them are humorous and we can laugh at them. Some of them are sinister and terrifying but so are the Tabloids. It is much more satisfying aesthetically to be amused, to be frightened even, than to be bored by a pompous and empty art which has become enfeebled through the constant reiteration of outmoded formulae.” *Hartford Times* review of “Newer Super Realism,” November 7, 1931, in Gaddis, 160.

(MoMA), the only museum in the country dedicated to the promotion of modern visual culture. Since the late 1920s, Hitchcock had been promoting the architecture of Le Corbusier, J.J.P. Oud and Walter Gropius, whose work was “almost unknown” in the United States, “describ[ing] what he saw as two opposing modes of contemporary architecture – one based on borrowings from the architectural vocabulary of the past, the other free from traditional ornament, expressing itself through the function of the building and the properties of modern construction materials themselves.” His thesis about this work’s constitution of a new “International Style” was described in the 1932 exhibition at MoMA, *Modern Architecture: International Exhibition* and his subsequent book, *International Style Architecture* (1932).<sup>32</sup> Warburg had become a pivotal figure in the world of performance art, serving as one of the primary backers in a prominent but ultimately botched effort, with Austin and Lincoln Kirstein (another founder of the Harvard Society for Contemporary Art) to start an American Ballet School at the Atheneum under the aegis of the Georgei Balanchine, a ballet master of the late Diaghilev whom the men believed would rejuvenate classical dance in America.<sup>33</sup>

Calder’s sales, exhibition and self-promotion in the remainder of 1934 and beginning of 1935 demonstrate that as he settled into his new American life, his

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<sup>32</sup> Austin was particularly inspired by Hitchcock to promote modern architecture in America. He designed part of his house in a modern fashion, with a dressing room modeled after Gropius’ and a “Bauhaus style” office that he opened to the public in 1930. “[T]o introduce contemporary architecture more fully to Hartford, Chick asked Hitchcock to give a public lecture at the end of” 1930. He had up to the minute slides, and the architect Richard Neutra, who was designing “radical” buildings for Los Angeles also participated. “The Hartford audience was thus among the first in the country to hear about the International Style directly – from the scholar who named it and the architect who first realized it in America.” Gaddis, 173-74. Austin was able to utilize much of the museum’s \$700,000 endowment to build the Morgan Memorial. *Idem.*, 171.

<sup>33</sup> Although other Russian-run ballet schools already existed in the United States at the time, the prospect of Balanchine establishing a school in the States was what the New York Times dance critic called “the realization of a long-cherished dream,” as “the youthful Balanchine promised to move classical dancing in creative new directions.” *Idem.*, 213. See Weber, “A Ballet School,” 177-212.

ambitions and feats often dovetailed with those of the eminent group of art patrons with whom he interacted at the premiere of *Four Saints*. One month after the premiere, Barr made his first purchase of a sculpture by Calder for MoMA.<sup>34</sup> In April, when his mobiles were shown at the Pierre Matisse Gallery, Edward Alden Jewell described them as the “Mobiles that Startled Paris.”<sup>35</sup> In December 1934, when the American Ballet Theatre gave its premiere American performance – the venue chosen because, as one reporter summarized, “Hartford is fast becoming a place where experiments in the arts may have their debuts and look for intelligent appreciation,” Calder contacted Thomson again, expressing his anticipation of hearing more about the possibility of creating a set for the composer’s rendition of Erik Satie’s revered opera *Socrate*, a performance Austin hoped would recapture the excitements of the *Four Saints* premiere at the Atheneum.<sup>36</sup>

Notably, prior to contacting Thomson about the possibility of collaborating on a future opera, Calder also made efforts to remind two other prominent figures in American art of his interest in stage design – an area he had begun to explore in Paris, where he had participated in the common avant-garde ritual of attempting to create stage designs for the *Ballets russes* (as had his close friend Miró). In the summer of 1934, as the American Ballet Theatre made its inaugural performance at a private event hosted by Eddie Warburg, Calder discussed his interest in “developing a sort of ballet” with his mobiles in

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<sup>34</sup> The work was a mobile entitled *A Universe*, which the artist exhibited in the New York Municipal Art Exhibition. Marter, *Alexander Calder*, 141.

<sup>35</sup> Edward Alden Jewell, “‘Mobiles’ That Startled Paris,” *New York Times*, May 13, 1932 in Marter, *Alexander Calder*, 133.

<sup>36</sup> The *Hartford Times*, December 5, 1934, in Gaddis, 264. In early 1936, *Variety* described Hartford as “America’s New Salzburg,” publishing the headline, “CULTURAL CAPITAL OF U.S. IN CONN?” and citing Balanchine’s company performances, and *Four Saints*, “as examples of the museum’s brilliant success.” *Variety*, January 22, 1936, in Gaddis, 299.

letters to A.E. Gallatin and James Johnson Sweeney. Gallatin was a collector and the founder of the Museum of Living Art - in truth, this was a one-room gallery in a New York University building, but it was, significantly, the first in America to be devoted exclusively to the display of abstract art.<sup>37</sup> He had visited the artist's studio in Paris and seen what Calder reminded him of as "performance" or "ballet objects," in a letter dated August 1934. The artist also referred to these objects in a July letter to Sweeney, a prominent American critic who frequently interpreted the European avant-garde art for American audiences, whom Calder met in 1932 after he invited him to view the first American exhibition of his abstract work, at the Julien Levy Gallery.<sup>38</sup>

Shortly after Calder wrote to Thomson about this potential collaboration, Austin directly incorporated him into his performance-centric promotion of avant-garde culture and new aesthetic stimuli. In early 1935, he gave Calder's mobiles center stage in the exhibition "Three Centuries of American Painting and Sculpture." He suspended a large Calder mobile in the Avery's renowned three-story central court, and "kept the piece in constant motion throughout the evening by prodding it with a stick." He also installed a motor to the base of a 19<sup>th</sup> century wooden cradle and, placing it in the same room as one of Calder's motorized mobiles, made the tongue-in-cheek declaration that the latter work was "an early wooden sculpture." Gaddis explains that these provocative uses and interpretations of Calder's mobiles allowed the young director to draw attention to the most modern works in the exhibition, in defiance of Atheneum's trustees, who had hoped

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<sup>37</sup> Gail Stavitsky, "A.E. Gallatin's Gallery and Museum of Living Art (1927-1943)." *American Art* 7 no. 2 (Spring, 1993), 47.

<sup>38</sup> Léger suggested that Calder meet Sweeney. Calder to A.E. Gallatin, August 11, 1934, and Calder to Sweeney, July 19, 1934, in Arnauld Pierre, "Staging Movement," in Prather, 331. Pierre discusses the relation between Calder's early identification of his work as "composing movement," choreography and ballet.

that the survey would represent a return to the traditional programming that had been overshadowed of late.<sup>39</sup>

Approximately one year would pass between this incorporation of Calder's mobiles into Austin's overarching program and the premiere of *Socrate*, for which the artist would provide a large and greatly esteemed mobile set design. In the interim, Calder would design his first mobile for a type of space as-yet-untested in Hartford or elsewhere in the United States, a self-consciously modern outdoor site. This project would reflect and help develop the interdisciplinary and performative approach to modern visual art that Austin emphasized at the Atheneum, and which had been of interest to the other prominent figures to whom Calder had promoted his abstract work during his initial resettlement in America.

### **Calder's Mobile for Charlotte Whitney Allen: A Prototypical American Commission**

In December 1934, in the same weeks as Calder was writing to Thomson about the set design for *Socrate*, the artist entered into a conversation with a landscape designer named Fletcher Steele about another, immediate opportunity for work, in the form of a mobile to be designed for the garden of Steele's longtime client and friend Charlotte Whitney Allen, in Rochester, New York.<sup>40</sup> The timing of this request is remarkable; as

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<sup>39</sup> Gaddis, 272 and 274.

<sup>40</sup> Although Steele was educated at Harvard, he belonged to the generation before that of the Paul Sachs students who played prominent roles at the Atheneum and MoMA. It is not clear how well acquainted he was, if at all, with the younger group, at the time he solicited Calder's collaboration in 1934; by 1937, he contributed an essay to the catalog of an exhibition on modern landscape architecture that Henry-Russell Hitchcock organized in San Francisco. There is no recorded interaction between Steele and Harvard Modernists prior to that date. However, Steele's own frequent travel in Europe, and his attendance at Calder's exhibition at the Galerie Vignon in 1932, suggest that he had interacted with the members of this



Mirka Benes explains, “the first major treatise in English on gardens and modernism” was not published until 1938. This work, Christopher Tunnard’s *Gardens in the Modern Landscape* “advocated placing modern sculptures in modern design contexts,” and the author “illustrated his point... with his own use of a Henry Moore sculpture at the Serge Chernayeff estate at Halland, Sussex;” a project that was not completed until 1937, more than two years after Calder and Steele are recorded to have first been in contact.<sup>41</sup>

Steele is reputed to have been inspired to commission Calder as a result of having attended the artist’s show at the Galerie Vignon in 1932.<sup>42</sup> Although the 1932 exhibition was indoors, records of it give some sense as to why it would have inspired Steele’s development of Allen’s garden. The show was the first public exhibition of Calder’s *non-motorized mobiles*, and included not only the prototypes of the complex and infinitely changing mobiles for which Calder is well known today, but also gongs and other provocative versions of mobile sculpture, such as an object entitled *Small Sphere Heavy Sphere*, consisting of two differently-sized balls which attendees were invited to disturb. Once offset, the spheres were propelled to dramatic and cacaphanous effect into a smattering of objects arranged for this purpose on the floor of the gallery.<sup>43</sup> [fig. 27]

The combination of beguiling and provocative mobiles at the Galerie Vignon are likely to have aroused Steele’s interest in commissioning Calder for Allen’s garden because the space was distinctive in the city’s lively, competitive and overlapping social

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group, and the possibility that he would have been aware of the display of Calder’s work at the Atheneum in early 1935, and the manner in which Austin had set the work into motion.

<sup>41</sup> Mirka Benes, “Inventing a Modern Sculpture Garden at the Museum of Modern Art in 1939,” *Landscape Journal*, 13, no. 1 (April 1994), 117.

<sup>42</sup> Robin Karson, *Fletcher Steele, Landscape Architect: An Account of the Gardenmaker’s Life, 1885-1971* (New York: Abrams, 1989), 190.

<sup>43</sup> Marter, *Alexander Calder*, 127-129 and Rower, “Calder in Nature,” 13.

and arts networks. Due in large part to the philanthropy of George Eastman, who sponsored a first-rate opera company in town, in the 1920s Rochester had evolved from a provincial town into a cultural center; in addition to the Eastman School of Music and School of Theatre, which attracted such luminaries in the 1920s as the choreographer Martha Graham, the city was also home to James Sibley Watson, who edited the *Dial*, a magazine promoting avant-garde literature and visual art, from 1919-1929, and produced avant-garde film until 1933.<sup>44</sup> Rochester's social system was supported by a noteworthy salon and "club" scene. Allen was a significant figure in this scene, having founded her own club in her twenties, and for the remainder of her life, she hosted daily gatherings for this club and others. These gatherings generally took place in her garden, which Steele had designed for her in 1916, and developed over the course of two decades.<sup>45</sup> [figs. 28-29]

Allen's status as a prominent hostess in Rochester appears to have had a keen effect on her commission of Calder. From the start, the process was elaborate and reflected the careful consideration that she and Steele put into her garden in the preceding

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<sup>44</sup> On the Sibley Watsons' activities and reputations in Rochester, see Cynthia Culbert, "Gaston Lachaise," in *Seeing America: Painting and Sculpture from the Collection of the Memorial Art Gallery of the University of Rochester*, ed. Marjorie B. Searle (Boydell & Brewer, 2006), 207 and Janet Wolff, "Provincial Matters," in *InVisible Culture, An Electronic Journal for Visual Culture* 21 (October 20, 2014), <http://ivc.lib.rochester.edu/provincial-matters/>.

<sup>45</sup> Karson, 38 and James Rieger, "Dear Hearts: Clara Louise Werner Ward (1889-1973) and Charlotte Whitney Allen (1891-1978)," *University of Rochester Library Bulletin* XXXII (Winter 1979), reproduced online, <http://rbscp.lib.rochester.edu/3567>.

Notably, there is also a link between Rochesterians and the Wadsworth Atheneum at the time of Calder's re-settlement in the United States, as the Sibley Watsons were the daughter and son-in-law of one of Virgil Thomson's most significant patrons, Jesse Lassel. Thomson first met Lassel in 1924, and received an allowance from her during the first three years of his development of *Four Saints in Three Acts*. Anthony Tommasini writes that the opera "would have been impossible without Jesse Lassel's patronage." Tommasini, *Vigil Thomson: Composer on the Aisle* (New York: W. W. Norton, 1998), 165. It is likely that some combination of the Lassel-Sibley-Watson family members had attended the premiere in Hartford, and were apprised of the possibility that Thomson and Calder would be collaborating on *Socrate*, which Austin and others hoped would reprise the excitement of *Four Saints*.

decades. Allen made the commission only after she vetted the artist's work, apparently examining an object of his, possibly one that he sent to Rochester via Steele between December and January of 1935. Her decision may also have been informed by a set of photographs Calder sent Steele.<sup>46</sup> [figs. 30-32] The images, now in the Steele Archive at the Library of Congress, show two tripod-based works that are occasionally referred to with the same title *Vane*, and are outfitted with vane-like apparati, as well as another large, currently unidentified standing mobile, consisting of at least four large painted metal discs attached to the ends of long metal rods that were linked to one another. In one image in the Steele archive, a man and woman stand next to this piece, which is connected to a long metal pole driven directly into the earth. The discs appear to range in size from approximately that of a human face to approximately four times as large; the largest and highest one is just taller than human height, and the lowest is at approximately knee level.

Calder may have been inclined to think that the commission would be based on this earlier piece, or the other mobiles designed for the outdoors that featured in the photographs he had sent to Steele. However, when Steele informed him that Allen wished to go forward with a commission, he was told that, instead of commencing work immediately, he should “stop and reconnoitre” his new patroness in Rochester. Calder immediately proposed to Allen that he visit Rochester in February, on his return trip from an exhibition in Chicago.<sup>47</sup>

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<sup>46</sup> In the first preserved correspondence between Steele and Calder, the artist wrote to Steele that he was “bring[ing] the mountain to Mohammed,” and hoped to bring an “object or objects” to Steele in Boston the following week. Calder to Steele, December 7, 1934, Calder Foundation, New York. Karson states that Calder sent Steele photographs in December 1935. Karson, 190.

<sup>47</sup> Calder to Charlotte Whitney Allen, January 25, 1935, Calder Foundation.

Although, in his autobiography, Calder described the conditions surrounding the creation of the Allen mobile as though it was designed on his return from Chicago, the archival record indicates that the piece actually developed through an even more extended period of interactions between Calder, Steele and Allen. While a visit is likely to have occurred in February 1935, correspondence shows that as of that spring, the commission was still stalled at the level of conversation. Finally, in August, Calder proposed to Allen that they “cut the middle man out,” eliminating Steele as a go-between (he had stopped responding to Calder, possibly, the artist admitted, because one of his own responses to a question may have seemed “too vague”) and in September, Calder traveled to Rochester, to fulfill the suggestion that he had made to Allen in August, that he “design the mobile under [her] own eye.”<sup>48</sup>

Calder had understood since the beginning of the arrangement that his piece was destined for a narrow alleé in his patron’s garden, a space that had originally been designated for a tea house. However, his September visit to create the work under his patron’s direction is likely to have informed the ultimate design. During the course of his visit, the artist gave a circus performance; this event would have permitted him to interact with his mobile’s future audience, in the form of the many friends who gathered at Allen’s home on a daily basis.<sup>49</sup> Staying with Allen would also have allowed Calder to

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<sup>48</sup> In April, Calder agreed to Steele’s suggestion “that I ought to make you an object (not water-impelled) that one might displace, and then watch it seek to regain its original calm, equilibrium, and peace of mind.” Then he and Steele had another exchange that further delayed the commission: Steele had asked Calder’s input on the type of plantings he would like to see surrounding his piece in Allen’s garden, and Calder replied that Steele should “make it as dark and gloomy (sic) as possible.” In August, Calder wrote to Allen, stating that, perhaps as a result of this response being “too vague” for Steele, communication with him had ceased. Calder to Allen, August 2 and 27, 1935, Calder Foundation.

<sup>49</sup> Calder to Allen, September 24, 1935, Calder Foundation.

observe how the garden was organized to lead the eye towards the focal point, a Lachaise sculpture of a female form enclosed by a stone arch.<sup>50</sup> [figs. 33-34]

The mobile that Calder finally produced for Allen seems to demonstrate the artist's interest in complementing Allen's garden as a distinctive social and physical environment. The piece, which Calder described summarily in his autobiography as "consist[ing] of some quite heavy iron discs that I found in a blacksmith's shop in Rochester and [had] welded to rods progressively getting heavier and heavier," reworked several prior elements of the artist's mobile oeuvre, and seems to have developed through a much more concerted effort on Calder's behalf than this description suggests.<sup>51</sup> [figs. 35-36] Calder had previously used tetrahedron bases as fulcrums for the cantilevering of rods, as in *Object with Red Discs* (1932), which the critic James Johnson Sweeney had recently accepted as a gift from the artist. However, in the mobile for Allen, Calder employed a tetrahedron base to a new end. [fig. 3] In her commission, the tetrahedron took on a new function, as a means of elevating the main elements of the piece. The piece's finished height was eight feet, and the tetrahedron base brought the mobile elements of the piece into the clear line of vision of visitors to the garden, and kept the mobile elements visible even from the distance, a critical trait for a work situated at the end of a narrow alleé enclosed by trees. Calder's use of the tetrahedron permitted the work to function in a way that Steele had suggested early in the process, when he asked

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<sup>50</sup> It may also have been significant to Calder that Lachaise's sculpture was developed over an extensive and expensive commission, during the course of which Lachaise repeatedly delayed the work and asked for further funds, substantiating his requests with commentary that the work was renowned for its evocative presence in Stieglitz's 291 Gallery; a retelling of this story may have underscored Calder's effort to create an original and affecting mobile. Culbert, 207.

<sup>51</sup> Calder, *Autobiography*, 154.

that it be something that visitors would interact with directly, offsetting it to “watch it gain its calm and equilibrium.”<sup>52</sup>

As an instrument of “calm and equilibrium” the mobile also contrasted with the artist’s prior outdoor mobiles as well as those which he had previously made to be off-set by their audiences. The elements of his prior outdoor mobiles, the two vane-like works pictured in the photographs he sent Steele, and another early outdoor work, *Steel Fish* (1934) (which he did not apparently submit as an example to Steele), had a characteristically perpetual and/or unpredictable motion; indeed, *Steel Fish* became renowned for its jarring sound. [figs. 47-48] His two other prior works known to be agitated by others, *Small Sphere Heavy Sphere* and the mobile Austin had agitated with a stick in the courtyard of the Avery, were also pieces which generated intrigue with random motion and patterns, in contrast to the graceful re-balancing that one can imagine anticipating after off-setting the pendulous elements of the Allen mobile. Calder’s mobile for Allen emerges, by comparison to these works, as the first for the outdoors to be both tolerable and durable. It remained in-situ until her death; while he did not receive further commissions from her, they remained friendly and she purchased additional pieces from him.<sup>53</sup>

With the successful completion of his commission for Allen, Calder produced a work that was able to give an independent and constant performance in relation to a

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<sup>52</sup> Calder to Steele, 1 ½ April, 1935 [sic], Calder Foundation.

<sup>53</sup> In the 1950s, the artist presented her with a small, tabletop mobile reading “Happy Birthday.” The mobile was part of Allen’s bequest to the Memorial Art Gallery at the University of Rochester; when, in 2000, it was re-installed for a special exhibition in its original site at the end of the allée, Allen’s friends were moved at the sight of it reinstalled amongst the beech-tree lined allée. Cynthia Culbert, “Alexander Calder: Untitled Mobile (1935),” in *Seeing America: Painting and Sculpture from the Collection of the Memorial Art Gallery of the University of Rochester*, 232.

specific designed space. As such, it surpassed uses to which his mobiles had been put at the Atheneum, and the mobiles he would design for the modern choreographer Martha Graham in the summer and winter of 1935, which Calder later recalled as a source of frustration for the fact that Graham had not been willing to allow the objects to perform independently.<sup>54</sup>

Although the completion of the mobile for Allen coincided with the long-anticipated development of his stage design for the premiere of Thomson's *Socrate* at the Atheneum, the Allen commission also appears to have assisted Calder in another critical commission: his *Wellsweep* (1936), another independently performing mobile, which he designed for permanent installation at the home of James Thrall Soby, outside Hartford, Connecticut. Significantly, Soby and his home were an order of magnitude more prominent in American avant-garde culture than Allen and her garden "club." Thanks to the efforts of Henry-Russell Hitchcock, the Soby home was one of the most important examples of the sort of modern architecture that the Atheneum and MoMA were then promoting in the Northeastern United States. Calder's commission for Soby positioned his work at the heart of the critical avant-garde culture around the Wadsworth Atheneum.

### **Abstraction in the Limelight: Calder's *Wellsweep* (1936) and Stage Design for Virgil Thomson's *Socrate* (1936)**

Approximately one month after Calder completed his commission for Allen, Austin began to make plans for another watershed event in Hartford: a music festival that he hoped would bring the same sort of excitement to the city that Thomson and Stein's *Four Saints in Three Acts* had generated nearly two years prior. The festival was to

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<sup>54</sup> Marter, *Alexander Calder*, 162.

include the production of *Socrate*, Thomson's interpretation of the opera by the modern composer Erik Satie. Its stage design, by Calder, was the one that the artist had been scheming to create since the immediate aftermath of *Four Saints in Three Acts*.

Likely due to his work on this production, Calder was also included in late 1935, in an Atheneum exhibition of abstract art that, although small, also constituted another art world milestone arranged by Austin. The show, inspired by the director's visit to Europe the prior summer, was one of the United States' most selective presentations of European abstract art. Austin and Bobsy Goodspeed of the Arts Club of Chicago had developed the idea for the show between visits to artists' studios in Europe the prior summer, and they had organized the exhibition as a demonstration of "pure" abstraction. Not insignificantly, the pair had visited Mondrian's studio and Austin had a profound reaction to the space, as Calder had six years prior. The exhibition consisted of nineteen works lent by Mondrian, Gabo, Pevsner, and Domela, as well as others by the same artists from American collections.

Austin installed the exhibition on the main floor of the Avery Memorial building in late 1935, and he included two Calder mobiles at the last minute. The show was a revelation to the Hartford audience, which, like most in the United States, had never before seen such an edited and aesthetically displayed grouping of nonfigurative abstract works.<sup>55</sup> While significant exhibitions of abstraction had been given at Alfred Stieglitz's galleries in the 1910s and 1920s, and the International Exhibition of Modern Art at the 69<sup>th</sup> Regiment Armory in New York in 1913, Austin's Abstract Art exhibition was an

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<sup>55</sup> On the challenges Gallatin faced in maintaining an accessible and enjoyable gallery for abstract art, see Gail Stavitsky, "A.E. Gallatin's Museum of Living Art (1927-43)," *American Art* 7, vol. 2 (Spring 1993), 46-63.



unprecedented demonstration of the interrelation between nonfigurative art and a modern architectural space. [fig. 37]

In the same month that Calder's mobiles were displayed in the context of this remarkable group of nonfigurative works, he received a commission for a large outdoor mobile for the home of Soby.<sup>56</sup> Soby was a wealthy native of Hartford and important young patron of the Atheneum whose passion for avant-garde work delighted Austin and his circle, but horrified many of his fellow Hartfordians; he attempted to bring his neighbors around to his taste in at least one instance by telling a *Hartford Times* reporter that his collection could compete with the most advanced ones of Europe.<sup>57</sup> He had recently bought and begun to remodel a home in Farmington, CT, a rural area nearby Hartford. He was advised in this endeavor by Henry-Russell Hitchcock.

In addition to forcefully promoting functional and unornamented architecture in his promotion of "International Style Architecture," Hitchcock was also a man of catholic tastes, ranging from contemporary music to Neo-Romantic painting. The range of his interest was reflected in the fact that, in the course of designing a noteworthy "International Style" addition to Soby's century-old farmhouse outside Hartford, Hitchcock also arranged for an artist he held in particular esteem, the Neo Romantic painter Eugene Berman, to paint panels for the interior of the home. After Hitchcock and Soby "discovered a 'dug well'" at the house, the pair recognized another opportunity to commission an artist for the site, and "decided to ask Calder to design a tall mobile to

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<sup>56</sup> The exhibition contained nineteen works by Pevsner, Gabo, Mondrian, Domela. Each artist was based in Paris. Weber, 292.

<sup>57</sup> Gaddis, 142.

serve as a well head.”<sup>58</sup> This choice likely reflected a combination of factors, most notably the contemporary display of Calder’s mobiles in the modern, Bauhaus-influenced interior of the Atheneum during the abstract art exhibition, and Hitchcock’s close friendship with Thomson.<sup>59</sup>

The distinctions of *Wellsweep*, as well as archival photographs of the site and mobile before, during and after its construction, suggest that this commission, like that for the Allen garden, was significantly informed by the interests of its organizers, and its success was due in large part to their faith in, or assumption of, the artist’s ability to solve new visual and mechanical problems in response to specific spaces and needs. Hitchcock and Soby requested that Calder produce a large mobile for the wellhead, which sat directly in front of the stark white, unornamented addition Hitchcock had built off the back of Soby’s farmhouse. In contrast to the narrow allée designated for Calder’s work in the Allen garden, this site was part of the focal point of the Soby home, as it adjoined the patio and was visible from the living room of the Hitchcock-designed addition. By December, Calder and Hitchcock had determined, as Calder wrote to Soby, that “the basic material should probably be chiefly wrought iron painted colors.”<sup>60</sup>

As he had in the garden of Charlotte Whitney Allen, Calder devised his piece for Soby under his patron’s “watchful eye.” In this instance, the fact that some of the production process also occurred under the gaze of a camera lens helps determine how

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<sup>58</sup> Zaffran, 46-47.

<sup>59</sup> The precise timing of the Soby commission is not known, but Calder’s correspondence around the time of the Hartford Festival suggests that *Socrate* was performed before he completed *Wellsweep*. Prior to February 10, 1916, Calder wrote to Nellie Howland at the Atheneum, asking for the name of a welder in Hartford. He employed a welder in the construction of *Wellsweep*; this suggests the Soby mobile was constructed after the *Socrate* performance. Howland to Calder, February 10, 1936, in Gaddis, 459.

<sup>60</sup> Calder to Soby, December 14, 1935, in Zaffran, 47.

and to what end the piece was designed. None of the images in the Soby archive are labeled or dated, but they demonstrate that throughout the construction of *Wellsweep* and in its aftermath, the design and first reception of the piece seems to have taken place in a jovial, social atmosphere.

One photograph reveals that at the start of the project, a mock mobile, consisting of such debris as a large section of aluminum gutter and some sort of ornamental screen, was erected on the site; if the laughter of the unidentified people in the photograph is any indication, this was done as a practical joke. Photographs also recorded Calder working with a welder, again, accompanied by additional acquaintances, including Eugene Berman, the painter commissioned at Hitchcock's recommendation for panels for the interior of the Soby home, and who also decorated the lobby and a set of the Morgan Memorial Theater at the Hartford Festival in February 1936.<sup>61</sup> [figs. 38-39]

As Soby later recalled, Calder and the welder "tinker[ed] with the balance" until, out of apparent "inextricable disorder," "the machine revolved, strangely beautiful in the sun."<sup>62</sup> A photograph of the final result against the façade of the house demonstrates how, as in his design for the Allen garden mobile, Calder had developed a work that complemented its intended site. [fig. 40] Calder concentrated this work's visual intrigue in the top of the piece, where seven differently-sized and variously colored metal discs were connected to a combination of straight and curved metal rods. This elevated network was offset by the stark white walls of the façade of the Soby home. It is noteworthy that Calder created a large white element to counterbalance the bucket that was suspended from the main rod of the piece. This large white element was particularly

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<sup>61</sup> Gaddis, 301 and 306.

<sup>62</sup> James Thrall Soby, "My Life in the Art World," unpublished memoirs, in Zaffran, 47.

legible against its specific background, the dark masonry at the base of the home and in the steps leading from the lawn to the elevated patio.

Another set of images of *Wellsweep* gives a sense of how distinctly the piece could change in relation to its environment as its elements pivoted around the tripod base. [figs. 41 - 42] These photographs feature Calder, Berman, and an unidentified woman acting out what Calder later called, in a later request for these photographs, “nighttime phantasies.”<sup>63</sup> The images depict the trio using the brick terrace as a sort of stage in one instance, and in another, as a frame for dramatic poses around the middle section of the mobile’s tripod legs. Here, we see the largest element of *Wellsweep*, apparently as-yet-unpainted, positioned directly alongside the brick patio. Judging from the daytime photograph of the completed work, this alternate positioning of the largest element in the piece would have cantilevered the bucket into the open space of the lawn bordering the house, and, as such, brought five of the topmost disc elements perpendicular to the façade.

The manner in which Calder and Soby’s friends enacted “nighttime phantasies” around *Wellsweep* also reflected another highly anticipated component of the contemporaneous Hartford Festival, the Paper Ball. For this event, which was the grand finale of the Festival, the interior of the Avery was transformed by a redecoration that entailed weeks’ worth of work by local citizens and art students under the direction of Pavel Tchelitchew, the neo-Romantic artist and *Ballets russes* stage designer, using pink, blue, green and white-hued newspapers and other ephemeral material to transform the interior of the Avery Court into a “breathtaking world... spread with newspapers of

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<sup>63</sup> Calder to Soby, August 2, 1936, in Zaffran, 51.

different hues,” arranged to resemble theater balconies. A procession of twelve costume groups, “the Committee and Attendants,” then masqueraded through the space in extraordinary costumes, including a group sponsored by the Sobys and dressed by Calder, in brown-paper animal costumes, dubbed “A Nightmare Sideshow.”<sup>64</sup> [figs. 43-44]

As much as the reactions to *Wellsweep* recalled the general activity around the Hartford Festival, it is also critical to note that the Soby commission also had different effects upon a large space than the similarly scaled mobile set Calder designed for *Socrate*, the highlight of the Hartford Festival. [figs. 45-46] The set of *Socrate* consisted of three disparate mobile elements: one comprised of two large intersecting chromium hoops that evoked a spherical volume, a tall white panel and a bright red disc. Throughout the course of the opera these three elements moved in a manner that Thomson remembered with particular affection for being “simple to the eye and restrained in movemet[...] so sweetly in accord with the meaning of the work that it has long remained in my memory as a stage achievement.”<sup>65</sup> The three mobile parts slowly traversed the stage, with the white panel rotating, as well, and finally coming to “lay flat upon the floor, turned over, and rose up intensely black, just at the moment when Socrate was drinking the goblet of hemlock.”<sup>66</sup>

The differences between the forms, mechanics and motions of *Wellsweep* and those of the mobile stage set for *Socrate* underscore the notion that Calder had seized upon it as an opportunity to make a serious investigation into how to create a work that

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<sup>64</sup> Gaddis, 303.

<sup>65</sup> Virgil Thomson, *Virgil Thomson* (London: Weidenfeld and Nicolson, 1967), 256.

<sup>66</sup> Jean Lipman, *Calder's Universe*, (New York: Whitney Museum of American Art, 1976), 172-4.

dramatized a large and architecturally distinctive space. *Wellsweep* also appears to have evolved from prior large-scale works he had designed for the outdoors; it had fewer auxiliary supports and interconnections between elements than the comparable earlier outdoor mobile *Steel Fish* (1934). [figs. 47-48] In the aftermath of the Hartford Festival, which left the Atheneum in debt, the museum's trustees curtailed the funds available to Austin to promote work and events so far outside the spectrum of conservative Hartford taste. MoMA assumed the mantle as the foremost promoter and site for the interrelation of the streams of modernism when Alfred Barr's groundbreaking exhibition *Cubism and Abstract Art*, which included hundreds of examples of painting, sculpture, reliefs and architectural models, opened mere weeks after the conclusion of the Hartford Festival. The next and final section of this chapter discusses how Calder's first American patrons' interests in relating mobiles to both social performances and specific spaces paved the way for his first collaboration with MoMA, on the occasion of *Cubism and Abstract Art*.<sup>67</sup>

### ***Cubism and Abstract Art* and the Political Mobilization of Calder's Abstraction**

*Cubism and Abstract Art* was the first major American exhibition devoted to abstract art, and it presented an unprecedented number and range of works. This achievement reflected Barr's extensive personal connections with abstract artists and success in securing numerous loans directly from them during research and collecting

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<sup>67</sup> "At the same time, by 1936 his ability to be an innovator was diminishing. There were few threads of modern art that Chick [Austin] had not yet explored and almost no form of art that he had not already introduced to his museum." MoMA, by contrast, was in a position of strength due to the fact that its trustees' were "serious collectors of modern art." Gaddis, 310.

trips to Europe in the early 1930s.<sup>68</sup> Although Calder and Barr had traveled in the same circles since 1930, the exhibition instigated a new and critical relationship between the pair, when the director commissioned the artist to create a mobile to advertise the show. Although the origins of this intriguing project for *Cubism and Abstract Art* are unknown, it is likely that Calder's recent commissions at and around the Wadsworth Atheneum supported if not catalyzed the idea that an abstract mobile would be an effective signal and advertising object. Barr had close ties to Austin and Hitchcock, which makes it likely that he would have been aware of, or intrigued by, the manner in which they had not only displayed Calder's mobiles, but made them an integral aspect to Austin's efforts to snub traditional culture, as when he agitated Calder's mobile on the opening night of the wide-ranging "American Art" exhibition in late 1934, and in *Socrate*, which Barr attended.<sup>69</sup>

Calder's mobile for *Cubism and Abstract Art* was suspended from a flagpole atop the midtown Manhattan brownstone that housed the museum at the time. [figs. 49-50] The surreal work consisted of a large, conical element that was made of dark cloth and had undulating edges and biomorphic cut-outs. A triad of light-colored, mismatched shapes dangled perhaps eight feet below it, giving the overall impression that some form of artificial jellyfish was suspended approximately the span of one story of the traditional

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<sup>68</sup> Barr's academic expertise lay in the history of Byzantine art, however, when researching his dissertation in the late 1920s, Barr made contact with numerous groups of avant-garde artists, through the suggestion of his friend the gallerist J.B. Neumann, including Bauhaus, Neue Sachlichkeit and revolutionary Russian artists. He returned for a year-long stay in Stuttgart, from 1932-33. *Cubism and Abstract Art* was unique in terms of its scope and ambition. Whereas the central works in nearly all of prior exhibitions at MoMA had been culled from private New York collectors, *Cubism and Abstract Art* presented "the work from the artists' studios, private European collectors, Paris art dealers, and other new sources." Susan Noyes Platt, "Modernism, Formalism and Politics: The 'Cubism and Abstract Art' Exhibition of 1936 at the Museum of Modern Art," *Art Journal* (Winter 1988), 290-91.

<sup>69</sup> Although it is not clear that Barr had seen *Wellsweep* prior to "Cubism and Abstract Art," he is also likely to have been aware of its import, from an architectural standpoint, not only as the result of his friendship with Hitchcock, but also for the fact that Le Corbusier visited it immediately after he inaugurated his 1935 United States lecture tour at the Museum of Modern Art. Weber, 309 and Madges Madges Bacon, *Le Corbusier in America: Travels in the Land of the Timid* (Cambridge, Mass.: MIT Press, 2001), 300.

building. This publicity was, however, short-lived; by the third week of the show, the Fifth Avenue Association successfully demanded that the abstract and “distracting” contraption be removed from public space.<sup>70</sup>

In contrast to Calder’s earlier commissions for outdoor mobiles, the mobile for *Cubism and Abstract Art* moved quickly and freely, in a manner that Calder described to Barr as “flying.” Notably, he asked the curator to emphasize this new trait by labeling it as an “*objet volant*” in the catalog for the show. This request was made in the context of a compelling letter from the artist to the curator which demonstrates that the former had an interest in continuing to develop the specific type of relationship between his work and the public realm. In this letter, Calder tells Barr that a local department store had requested the removed “*objet volant*” for display in its stores, but that he would prefer that it “travel with the show.”<sup>71</sup>

Calder’s prioritization of the MoMA show over a remunerative offer from the department store had a critical political implication. Just as the surrealist presence of the flag had provoked consternation in the streets of midtown Manhattan, the contents of the show itself were similarly foreign and oftentimes offensive to the general public, and outcries were only likely to increase as the exhibition traveled beyond New York City. Calder’s interest in continuing to associate himself with such a provocative endeavor is likely to reflect that he, like Barr, saw the exhibition as an important political statement. *Cubism and Abstract Art* is often considered a hallmark of formalist art criticism, as a result of the infamous diagrammatic chart of modern art that Barr produced in

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<sup>70</sup> Calder to Alfred H. Barr, March 31, 1936, Alfred H. Barr Papers, Archives of American Art, Smithsonian Institution, Washington, D.C.

<sup>71</sup> *Ibid.* In the same letter, Calder’s discusses the dealer and artist George L.K. Morris, demonstrating that he was now moving into, and becoming competitive within New York art circles.



conjunction with it. But Susan Noyes Platt has demonstrated that it was also publicized as and represented a distinctive effort on Barr's behalf to mobilize public concern about fascism in Europe.<sup>72</sup> His unparalleled efforts to obtain works directly from European artists were aided by their recognition of their own straits, and Barr called attention to their imperilment in the introduction to the catalog, which he also dedicated to them. Calder decided to abandon his transatlantic existence in 1933, the same year that the Nazis shuttered the Bauhaus and Barr, while on sabbatical, witnessed the increasing strictures on artists in Stuttgart, a city renowned for its modern art and architecture. These coincidences suggest that Calder's preference to retain his commissioned mobile's relationship to *Cubism and Abstract Art* was motivated by the same politics that factored into Barr's development of the exhibition, and its significance for him.

It is not clear whether the mobile did in fact travel with the exhibition after it left New York. No reference was made to it in the catalog of the show, but after it was removed from MoMA's flagpole, it was purchased by the museum. Even in the absence of knowledge of the provenance or immediate fate of the mobile, a letter that Calder wrote to Barr the summer after *Cubism and Abstract Art* suggests that the project prompted him to take a new interest in designing his mobiles for public space. In August, several months after the end of *Cubism and Abstract Art*, Calder wrote to Barr to ask him to put in a word for him with the organizers of the 1939 New York World's Fair, stating, "I would love to do a large "mobile" for a central spot, of some sort, and have it actuated by wind, machinery, or jets of water, - or all combined."<sup>73</sup> This, the first record of Calder's aspiration to obtain a major commission for public art, is difficult to divorce

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<sup>72</sup> Platt, 290.

<sup>73</sup> Calder to Barr, August 31, 1936, MoMA Exhibition File #242, Museum of Modern Art, New York.

from the successful string of commissions that he had completed in the preceding two years, and the fact that they so often occurred around the Atheneum, a site of keen interest to Barr.

In producing successive commissions for interrelated patrons and promoters of avant-garde art in Hartford, Rochester and New York from 1934 to 1936, Calder learned and demonstrated that abstract art could reflect and respond to a variety of social and physical situations and requirements. Chapter Two examines how the artist's relationship with MoMA fostered and benefited from these approaches to the development and promotion of abstract art in the next decade.

## CHAPTER TWO

### **The Museum of Modern Art: A “Laboratory” for the Public and Calder’s Public Art Practice, 1936-45**

When Calder told MoMA’s Director, Alfred H. Barr, in 1936 that he wanted to do something for a “large central spot” for the 1939 New York World’s Fair, he did so with unabashed ambiguity about a problem he had yet to solve, namely, how to activate something for such a space and event: “by wind, machinery, or jets of water, - or all combined.”<sup>1</sup> This irresolution is compelling, because it suggests that in seeking to make his brand of art relevant for a public space and large area, he acknowledged a need to develop new levels of complexity and functionality for his mobiles. Calder’s comment also demonstrates that he was sufficiently familiar with and supported by Barr to ask for assistance in obtaining future commissions despite, or perhaps even because of, his lack of a formulaic or proven approach to them.

Although Barr did not succeed in obtaining a significant commission for Calder at the 1939 World’s Fair, over the course of the next nine years, he would be the most significant catalyst of the artist’s ambitions to design work for the public and for large spaces, the evolution of his approaches to doing so, and the increasing associations that others made between Calder and new forms of public space. Barr occupied this position for two reasons. First, he commissioned the artist repeatedly during this period, and was

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<sup>1</sup> Calder to Barr, August 31, 1936, MoMA Exhibition File #242, Museum of Modern Art, New York.

invaluable as an intermediary between Calder and many of the individuals who funded and approved of commissions. The second, related reason that he was so pivotal in Calder's critical development at MoMA is that he modeled the museum upon the Bauhaus, the radical professional school that the architect Walter Gropius founded in 1919, with a mission to promote painters, architects and sculptors' experimentation, in "laboratory-" like courses. Gropius' lofty goal was to revolutionize architecture and design to foster "from the hands of a million workers... a new and coming faith."<sup>2</sup>

Barr was astounded by the school's architecture and program when he visited it in the 1920s, and drew inspiration from it in the first ten years of his directorship at MoMA, which began with the museum's establishment in 1929. [fig. 51] Barr designed the museum to similarly break down barriers between applied and fine arts and demonstrate how their interrelation could reflect and promote distinctly modern culture.<sup>3</sup> He was also instrumental in developing its permanent home as a uniquely unornamented, materially advanced and flexible physical site, and when the new building was opened in 1939, he reaffirmed, "The Museum of Modern Art is a laboratory: in its experiments the public is

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<sup>2</sup> Walter Gropius stated in his 1919 "Manifesto of the Staatliches Bauhaus in Weimar:" "Architects, painters, and sculptors must once again come to know and comprehend the composite character of a building." Experimentation "in the workshop," was the only route, Gropius declared, to "desir[ing], conceiv[ing] and creat[ing] the new building of the future together." Only combining architecture, sculpture and painting, could create buildings that would "rise toward the heavens from the hands of a million workers as the crystalline symbol of a new and coming faith." <http://bauhaus-online.de/en/atlas/das-bauhaus/idee/manifest>

<sup>3</sup> "In preparing a draft for the brochure, the Director proposed, 'In time the Museum would probably expand beyond the narrow limits of painting and sculpture in order to include departments devoted to drawings, prints, and photography, typography, the arts of design in commerce and industry, architecture... stage designing, furniture and the decorative arts.. [and] a library of films.'" Alfred H. Barr, *Painting and Sculpture in the Museum of Modern Art 1929 – 1967* (New York: MoMA, 1967), 620, in Harriett Bee and Michelle Elligott, *Art in Our Time: A Chronicle of the Museum of Modern Art* (New York: MoMA, 2004), 29. Barr wrote in the catalog of the MoMa Exhibition *Bauhaus 1919-1928* (1938) "The Bauhaus building at Dessau was architecturally the most important structure of its decade. And we can ask if in modern times there have ever been so many men of distinguished talent on the faculty of any other art school or academy." Barr in Bee and Elligott, *Art in Our Time*, 49. On Barr's extended attention to Bauhaus ideals, see Gordon Bruce, *Eliot Noyes* (London: Phaidon, 2007), 54.

invited to participate.”<sup>4</sup> This chapter argues that, from 1936 to 1945, several aspects of MoMA's role as an American “laboratory for the public” led it to function as an informal but significant incubator of experiments by Calder and others that related his practice to a major contemporary debate: how to develop a public space where functionality and efficiency intermingled and formed a symbiotic relationship with individual artistic endeavor. The evolution of Calder’s installations in and commissions for MoMA’s campus from 1936 to 1945 suggest that these experiments accorded him a unique public reputation as someone capable of producing a form of modern art that interacted with and functioned in the context of modern architecture and urban space. This reputation was influential upon many of the first critical figures in the postwar development of abstraction for public art.

### **Background: Calder’s Commissions for Modern Architecture in Europe, 1937-38**

After Calder achieved the special position of being commissioned for *Cubism and Abstract Art*, Barr featured his work in the pedant exhibition, *Fantastic Art, Dada and Surrealism* (1937). With this, Calder became the sole American artist to be included in both pivotal shows. Several months after the conclusion of *Fantastic Art*, Calder and his wife Louisa returned to Europe for the first time in four years, in the spring of 1937 (bringing with them their 2-year old daughter, Sandra). Initially, they stayed in Varengeville, France, as the guest of their American architect friend, Paul Nelson. Nelson was a former pupil of the Swiss modernist architect Le Corbusier and, like Calder, owed much of his professional development to a transatlantic existence. During a fateful visit to

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<sup>4</sup> Alfred Barr, “The Plan of the Exhibition,” in *Art in Our Time, an Exhibition to Celebrate the Tenth Anniversary of the Museum of Modern Art and the Opening of its New Building* (New York: MoMA, 1939), 15.

Paris, Calder accompanied his dear friend, the surrealist Joan Miró, to view a sculpture he had been commissioned to create for the architect Josep Lluís Sert's Spanish Pavilion at the Paris Exposition Internationale des Arts et Techniques dans la Vie Moderne. [fig. 52]

Sert's pavilion, constructed at the height of Spain's civil war, incorporated art by prominent avant-garde Spanish artists including Picasso and Alberto Gonzalez, to draw attention to the Loyalist cause and protest fascism in Spain and Europe. Its significant open-air components, transparent glass facades and modest scale were intended to communicate that the character and aims of the Republican government stood in stark contrast to those of the U.S.S.R. and Germany, whose intimidating monumental pavilions in the same Exposition faced off in a dramatic opposition that became an ominous hallmark of the event. The pavilion functioned in many ways as a frame for Picasso's *Guernica*, and the abstracted and expressionistic characteristics of this focal point were also critical aspects of how the Pavilion opposed those of the fascist countries. [figs. 52-54]

As described in the Introduction, when Calder and Sert went to visit the Pavilion, the American artist witnessed the disposition of sculptures around the building, as well as *Guernica*. In the context of this nearly-complete installation, Calder was inspired to propose his own contribution, for a mobile in a part of the building that had not been designated as an art display space: the building's stairwell.<sup>5</sup>

This suggestion seems to have been inspired by another compelling display of a Calder mobile that Barr and Calder seem to have collaborated upon for the *Cubism and Abstract Art* exhibition at MoMA. This work, another untitled mobile dating to 1936, was a ceiling-suspended, biomorphic piece comprised of intersecting planes of metal. It was

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<sup>5</sup> Calder, "Mercury Fountain," *Stevens Indicator* 55 (May 1938), 7.

related in form to other well-known pieces from the period, including *Snake and the Cross*. [fig. 55-56] However, in a move that reinterpreted the public exhibition of Calder's suspended mobiles, Barr displayed this untitled work suspended apparently in mid-air, in a stairwell of the four-story brownstone.<sup>6</sup> [fig. 57] It seems likely that Calder's own design of the mobile may have influenced Barr's decision to display it in the stairwell. This is suggested by the photograph and description of the work in the exhibition catalog, where, unlike in the exhibition itself, the mobile was portrayed against the bottom section of a white wall. The caption stated that the mobile was "about seven feet long."<sup>7</sup> Judging from the installation photograph of it in the stairwell of the MoMA brownstone, the stated length of seven feet must refer to that of the piece *with* its suspending wire. This description, and the fact that Barr installed the mobile in the stairwell, imply that the curator installed the piece in a manner that highlighted the artist's own interest in creating a work meant to be viewed from above, rather than the conventional eye-level.

Calder's interest in developing a work for the Spanish Pavilion's stairwell may also have reflected his understanding of modernist efforts to integrate abstract art and architecture. Barr had featured examples of these efforts in *Cubism and Abstract Art* and they were also a major interest of Paul Nelson.<sup>8</sup> Notably, Calder's stay with the Nelsons in Varengeville, in the weeks before visiting the Spanish Pavilion with Sert, had been his first extended occupation of a space that related to these efforts. At the time of the

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<sup>6</sup> This untitled mobile also appears in a Herbert Matter photograph of Calder's studio, c. 1938, in Giménez, *Gravity and Grace*, 46.

<sup>7</sup> Barr, *Cubism and Abstract Art*, 206.

<sup>8</sup> *Ibid.*, 140 and 153.

Calders' visit, the Nelsons' home had been distinguished by a set of murals that Miró had painted for their living room wall.<sup>9</sup> [fig. 58]

These murals were related to a broader and more ambitious effort by Nelson. Since 1936, Nelson had been developing a project for his *Maison suspendue*, a radical attempt to redesign the individual house according to his former teacher Le Corbusier's maxim that it should be a "machine for living." [figs. 59-60] The project was premised upon a belief that man required a home conducive to isolation and self-reflection, and Nelson envisioned modern art as playing a critical role in this functionality. To this end, he requested that his artist friends provide maquettes for the three-dimensional models that he created of the house, and these were produced by Calder, as well as his and Nelson's mutual friends Léger, Arp and Miró.<sup>10</sup>

Although Sert rejected Calder's offer to create a mobile for the stairwell on the basis that the Pavilion was intended to be an exclusively Spanish enterprise, the artist nevertheless received a later critical commission that was both a landmark in his career and a compelling demonstration of just how experimental the interrelation of art and modern architecture was in 1937. As described in the Introduction, soon after dismissing the notion that the American could contribute to the Pavilion, Sert found himself in need of Calder's unique engineering background when he confronted the aesthetic discrepancies between the overall design of the Pavilion and the mercury fountain that he

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<sup>9</sup> Wick, 66-68.

<sup>10</sup> Joseph Abram, "Filter of Reason: Experimental Projects, 1920-1939" in *The Filter of Reason: Work of Paul Nelson* (New York: Columbia University and Rizzoli, 1990), 28-31 and Judith Applegate, "Paul Nelson: An Interview," *Perspecta* 13, n. 1 (1971), 75. The *Maison suspendue* models were exhibited in Paris, at the Golden Gate Exposition in San Francisco in 1939, at MoMA and in Boston and Chicago.



had planned to incorporate into his pavilion to celebrate the Loyalist victory at Almaden.<sup>11</sup>

Calder's solution to the problem, known simply as the *Mercury Fountain*, is widely understood to mark the birth of his career in "public art."<sup>12</sup> [figs. 61-62] Calder developed the fountain through extensive experimentation with the material properties of the mercury that seems to have been premised upon a desire to create a fountain that was horizontally dominant. Upon realizing that he could coat concrete with pitch, which mercury could not corrode, he developed an open basin, approximately seven feet in diameter, and placed an iron mobile in the center. As a reviewer who called the work a "masterpiece" explained, the mobile and basin not only withstood but developed the marvels of mercury as a substance, because the mobile, "a strange construction of black iron, graceful and precise like a great insect, allowed the mercury to flow slowly, to collect itself into a mass, to scatter, to roll from time to time in melting pearls, to play perpetually by itself, to the delight of the public which was present for the first time at the delicate spectacle of mercury moving in a fountain."<sup>13</sup>

Following the installation of the *Mercury Fountain*, Calder and his family rented residences in Varengeville and London. In both locales, they had further interaction with artists and architects inspired by and involved in efforts to orchestrate and promote the interrelation of modern art with the sort of volumetric, flexible and technically advanced

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<sup>11</sup> Phyllis Tuchman, "Alexander Calder's Almadén Mercury Fountain." *Marsyas* 16 (1972-3), 97; Marter, *Alexander Calder*, 190.

<sup>12</sup> Tuchman, 99.

<sup>13</sup> André Becleur, "Les Moyens d'Expression," *Arts et Métiers Graphiques*, 62, March 1938, in James Johnson Sweeney, *Alexander Calder* (New York: Museum of Modern Art, 1943), 42.

architecture that Sert's Spanish Pavilion and Nelson's *Maison suspendue* exemplified. In Varengeville, they played host to the foremost abstractionists in Britain; the sculptor Barbara Hepworth, her husband, the painter Ben Nicholson, and the painter John Piper. They also hosted the Finnish architect Aalvar Aalto, whose Finnish Pavilion for the 1937 Exposition Internationale was, like Sert's, acclaimed for its modernity.<sup>14</sup>

At the time of their socialization with the Calders, Hepworth, Nicholson and Piper had recently participated in a watershed effort to investigate the interrelation of modern art and sculpture, in the form of the exhibition *Circle: A Survey of Constructive Art*. *Circle* was intended to demonstrate how the "constructive trend" related to painting, sculpture, architecture and writing, and implicated "the whole social order," and its extensive accompanying catalog included a provocative essay, "The Death of the Monument," by the American architectural critic Lewis Mumford, and an editorial by the Russian constructivist Naum Gabo, who had designed numerous (but unrealized) architectural and monumental proposals in the 1920s and 30s.<sup>15</sup>

Calder scholar Joan Marter has argued that the publication of *Circle* prepared the ground for Calder's warm reception in London in the same year.<sup>16</sup> A photograph of the November, 1938 opening night of Calder's retrospective at the Walter Vincent Smith Gallery in Springfield, MA, also suggests that even after his return from London, and quite possibly as a result of the strains of thought to which he had been exposed there, he

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<sup>14</sup> *Idem.*, *Autobiography*, 162-64.

<sup>15</sup> Lewis Mumford, "The Death of the Monument," and Naum Gabo, "Editorial," in *Circle: International Survey of Constructive Art*, ed. Herbert Read, Naum Gabo and Ben Nicholson (London, 1937; rev. ed., Praeger Publishers, 1971), 263-270 and v-vi.

<sup>16</sup> Joan Marter has argued that the prominence of *Circle* played a role in the warm reception of Calder's solo exhibition at London's Mayor Gallery in 1937. Marter, *Alexander Calder*, 194.

continued to overlap with individuals making endeavors to that of *Circle*. The photograph from Calder's retrospective shows that its attendees included three critical figures in the contemporary development of public spaces: the cubist painter Fernand Léger, a dear friend of Calder's since the early 1930s, who had long theorized about the public applications of abstract art, and more recently contributed to five mural projects at the Exposition; Aalvar Aalto, the architect of the Finnish Pavilion of the 1937 Paris Exposition; and the eminent critic and historian of art and architecture Sigfried Giedeon.<sup>17</sup> [fig. 63] In the 1940s, Giedeon would cite the "hundreds of thousands lined up in the summer evenings along the banks of the Seine and on the Trocadero bridge, quietly waiting for the spectacles of fountains, light, sound, and fireworks" at the Exposition Internationale as proof that "the persistent predisposition for dramatic representation, even in the form of abstract elements" "cannot be suppressed." As I will discuss at greater length at the end of this chapter, during the course of the war, Giedeon would also elaborate, both individually and with the collaboration of Calder's friends Léger and Sert, on the vital import of artists and architects' collaboration upon "symbols for our period."<sup>18</sup> [fig. 64]

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<sup>17</sup> Giedeon's presence at Calder's retrospective is particularly compelling, because he had been one of the foremost promoters of the interrelation of modern art and architecture since the 1920s, when he became one of the co-founders of the Congresses Internationaux d'Architecture Moderne and supported such efforts as Léger's 1933 CIAM lecture on the import of modern mural painting, reprinted as "*Discours aux architectes*" in *Quadrante* (Milan) 11 no. 5 (September 1933), and as "The Wall, the Architect, the Painter," in Léger, *Functions of Painting* (Minneapolis: Viking Press, 1973), 91-99. Léger, as one of Calder's closest friends, is a likely point of connection between Giedeon and Calder.

<sup>18</sup> As such, he concluded, "newly created urban centers should be the site for collective emotional events, where the people play as important a role as the spectacle itself, and where a unity of the architectural background, the people, and the symbols conveyed by the spectacles." He described this as the final and most critical challenge facing modern architecture and urbanism – a "demand" that, if not met, would put the "whole development" of the profession "in mortal danger of a new escape into academicism." Sigfried Giedeon, "The Need for a New Monumentality (1944)," in *Architecture, You and Me: Diary of a Development* (Cambridge, Mass.: Harvard University Press, 1958), 27-28.

### ***Lobster Trap and Fish Tail* (1939) and the First Installations and Utilizations of Calder's Mobiles in the Goodwin-Stone Building**

The complementary and prominent efforts to investigate the significance of interrelating modern art with modern architecture that Calder was exposed to in Europe in 1937 and 1938 are likely to have informed his understanding of the significance of the commission that he received in the same period to create a ceiling-suspended mobile for permanent installation in the main stairwell of MoMA's new building, which was designed by the American architects Philip Goodwin and Edward Durrell Stone, and opened in 1939.<sup>19</sup> [fig. 65] The commission that Calder received for the building was critical on several counts; first, it is the only one known to have been made on the occasion. It was also made for a noteworthy spot in the new museum; the stairwell was one of the building's most pointed emulations of modernist European architecture. It had a distinctly asymmetrical position within the Museum's interior space; this asymmetricality distanced it from neoclassical architectural plans, and likened the building to Gropius' Bauhaus building in Dessau, which also had an asymmetrical stairwell bathed in light by plate-glass windows, as depicted in a famous tribute to the space by Kurt Schlemmer (which the museum had in its collection).<sup>20</sup> [figs. 66-67]

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<sup>19</sup> Plans for this new museum building were developed between the end of *Cubism and Abstract Art* in the spring of 1936 and 1938. Although Barr had aspired to choose the architect himself, and had traveled to Europe for interviews with Mies van der Rohe and J.J.P. Oud, the Board overrode his suggestions in favor of hiring Goodwin, a member of the museum's board. Rona Roob, "1936: The Museum of Modern Art Selects an Architect: Excerpts from the Barr Papers at the Museum of Modern Art," *Archives of American Art Journal* 23 no. 1 (1983), 23.

<sup>20</sup> Dominic Ricciotti, "The 1939 Building of the Museum of Modern Art: The Goodwin-Stone Collaboration," *American Art Journal* 17, no. 3 (Summer, 1985), 61-62.

As Dominic Ricciotti has explained, the glass bordering MoMA's stairwell was a segment of a broad expanse that "stretched tautly within the surface plane of the façade," "advertised the membrane-thin character of the building's walls and communicated 'a new conception of architecture as volume over mass.'"<sup>21</sup> These characteristics of the building made it an unprecedented American interpretation of the precepts of modern architecture that the museum had promoted since its watershed 1931 exhibition *Modern Architecture: International Exhibition* and the subsequent publication Henry-Russell Hitchcock and Philip Johnson's *International Style Architecture* (1932), which argued that the most advanced modern architecture emphasized volume over mass; technical perfection; and flexibility.<sup>22</sup>

*Lobster Trap and Fish Tail* (1939), the work that Calder created for MoMA's stairwell, seems to represent another fertile intersection, in the manner of the *Mercury Fountain*, between the development of Calder's work and that of new architectural space. [figs. 68-69] It was the artist's largest work to date, spanning some 15 feet. It occupied the open and relatively unadorned space of the stairwell, and provided visual interest in the space as museum visitors moved up and down the stairs. It was also one of the artist's first mobiles to incorporate hollow forms made out of bent wire. Significantly, these forms enabled the work to cast dramatically morphing shadows – what James Johnson Sweeney described as an "inexhaustible shadow play" in his essay for the catalog of Calder's 1943 retrospective at MoMA – on the unadorned walls that were perpendicular

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<sup>21</sup> *Ibid.*, 52.

<sup>22</sup> *Ibid.*, 52.

to and illuminated by glass wall that constituted the stairwell's back boundary.<sup>23</sup> These shadows seem in many ways to be an exploration of the dramatic interpretations of Calder's work that had been made by the photographer Herbert Matter since 1937, which were oftentimes dominated by the bold and surrealistic shadows that were produced by shining spotlights onto his work. [figs. 70-71]

The "inexhaustible shadow play" of *Lobster Trap and Fish Tail* occupied an interesting position in the physical and intellectual framework of MoMA in 1939. When MoMA's new building was opened to the public, it was perceived as "public evidence of its aims and ideals" to continue promoting such work.<sup>24</sup> However, its curators acknowledged that promoting such modern architecture had its particular challenges; as Barr had explained in 1932, "International Style" architecture's emphasis upon "technically perfect use of materials" precluded the use of ornament. "This lack of ornament," he acknowledged, "is one of the most difficult elements of the style for the layman to accept."<sup>25</sup> Given that Barr suggested that Calder create a mobile for the stairwell of MoMA, it is compelling to consider that *Lobster Trap and Fish Tail's* "inexhaustible shadow play" may have been designed specifically to alleviate a problematic aspect of "International Style Architecture" by enlivening the large expanse of blank wall, while simultaneously providing an opportunity for museumgoers to

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<sup>23</sup> James Johnson Sweeney, *Alexander Calder* (New York: Museum of Modern Art, 1943), reproduced <http://calder.org/life/system/downloads/texts/1939-Sweeney-Plus-P1018.pdf>.

<sup>24</sup> Talbot Hamlin, "Modern Display for Works of Art," *Pencil Points* 20 (September, 1939) in Ricciotti, 51.

<sup>25</sup> Alfred Barr, introduction to *Modern Architecture* (New York: Museum of Modern Art, 1931), 15.

appreciate the technical sophistication that permitted the space to be bathed in light from a curtain glass facade.<sup>26</sup>

The dramatic shadow play of *Lobster Trap and Fish Tail* is also significant in its relation to a choreographed water display, known as *Water Ballet*, that Calder developed for the Consolidated Edison Pavilion at the 1939 New York World's Fair, in the months leading up to the opening of MoMA's Goodwin-Stone building. [figs. 72-73] Calder was commissioned for this project by Wallace K. Harrison, one of New York's most prominent architects. Harrison had co-designed Rockefeller Center, and, more recently, the Trylon and Perisphere theme center for the World's Fair. Victoria Newhouse describes Harrison's interest in the architectural avant-garde, and states that he read Le Corbusier's magazine, *L'Esprit Nouveau* (first published in 1920), and, in the course of his first visit to Paris, in 1927, was introduced to and became lifelong friends with Léger and Calder. In the 1940s, he also lived in a radical aluminum house on Long Island.<sup>27</sup> Under his leadership, the 1939 World's Fair in New York was the first World's Fair to significantly promote modernist art. A number of important modernist painters and sculptors were commissioned for various pavilions, including Isamu Noguchi, Naum Gabo, Arshile Gorky and Stuart Davis.<sup>28</sup>

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<sup>26</sup> There are strong indications that the commission for *Lobster Trap and Fish Tail* helped the artist and the museum establish critical foundations for future work. In 1943, the artist benefited from his development of a mobile with a critical function in casting shadows upon an expansive, blank architectural backdrop, when he designed another work with a similar function for the ballroom of a hotel designed by Harrison in Caracas, Venezuela. In this work, the artist again enlivened an expansive space, in this instance the ceiling of a vast room, through the use of a reflective mobile that scattered bright reflections across the ceiling. Victoria Newhouse, *Wallace K. Harrison: Architect* (New York: Rizzoli, 1989), 96 Mark Rosenthal and Alexander S.C. Rower, *The Surreal Calder* (Houston, Texas: Menil Collection and New Haven: Yale University Press, 2005), 137.

<sup>27</sup> Newhouse, *Wallace K. Harrison: Architect*, 15 and 29.

In November 1938, Harrison described Calder's *Water Ballet* as part of a greater corpus of displays to "outdo those of Versailles." Calder's, he explained, was a "series of fire hoses which will be moved around like fireworks, rhythmically with music."<sup>29</sup> The emphasis upon *Water Ballet* as, first and foremost, a performance, was repeated several months later, when *Plus*, an insert of *Architectural Forum*, published a grid showing sixteen different formations of jets of water, which it described as the "ballet designed by Alexander Calder for the pool of the Consolidated Edison Building."<sup>30</sup> In accordance with this understanding of the work as a performance rather than an arrangement of static forms in space, Calder recalled that the project was abandoned when engineers lost interest in the project.<sup>31</sup>

If *Lobster Trap and Fish Tail* was a triumph in contrast to the disappointing abandonment of Calder and Harrison's highly publicized attempt to make *Water Ballet* a prominent abstract performance for the public realm, it would nevertheless be six years until Calder received another comparable commission.<sup>32</sup> However, during this period, relating Calder's work to public spaces and audiences developed as a focal point of Barr

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<sup>28</sup> See Helen Harrison, *Dawn of a New Day: The New York World's Fair, 1939/40* (New York: Queens Museum, NYU Press, 1980); *idem.*, "Stuart Davis' 'World of Tomorrow,'" *American Art* 9 no. 3 (Autumn, 1995), 96-100 and Shoji Sadao, *Buckminster Fuller and Isamu Noguchi: Best of Friends* (Milan: 5 Continents Editions, Long Island City: The Isamu Noguchi Foundation and Garden Museum, 2011), 113.

<sup>29</sup> Untitled Notes from the Proceedings of the New England Conference of the American Association of Museums on November 10<sup>th</sup> and 11<sup>th</sup>, New Haven, CT, 189-YRG 18-A Series II Box 12 Folder 89.

<sup>30</sup> Sweeney, James Johnson. "Alexander Calder: Movement as a Plastic Element." *Plus*, no. 2 (February 1939), 29.

<sup>31</sup> In fact, Calder and the engineers appear to have conferred upon "redesign[ing]" the nozzles at least three times, as indicated by letters to Harrison and Foulhoux, dated 8 November 1938, 2 December 1938, and 15 May 1939, New York World's Fair 1939 and 1940 Incorporated Records, Manuscripts and Archives Division, New York Public Library, Box 1249, Folder 14. The last letter is dated only weeks prior to the opening of the fair. In it, the chief hydraulic engineer described his ongoing and intensive efforts to the realize the *Ballet*. His concerns included ascertaining the proper nozzle size for the water jets, and finding a means to make the "plops" of water audible against the "noise of the water façade."

<sup>32</sup> Barr to Calder, June 25, 1941, Calder Foundation.



and other curators' efforts. The first such efforts began approximately one year after the installation of *Lobster Trap and Fish Tail*, when, in an action that reemphasized Barr's impression by the Bauhaus, he hired the young architect Eliot Noyes as the museum's first curator of design.<sup>33</sup> Approximately one year later, Noyes requested to meet Calder at his Roxbury studio. He left, as he wrote to the artist, "part of [Calder's] most enthusiastic public."<sup>34</sup> Several months after their visit, Noyes included two of Calder's mobiles in his groundbreaking exhibition, *Organic Design in Home Furnishings*, at MoMA in September 1941.

Noyes had been preparing this exhibition for nearly all of his tenure at the museum, and it was by far the most important design exhibition the museum would have during the war. The show preached a concept of "Useful Design" that had been central to the philosophy of the Bauhaus, and which would remain at the core of Noyes' own career going forward. Noyes had underscored this concept in his first exhibition at MoMA, *Useful Objects of American Design Under \$10* (November 1940). [fig. 74] Whereas the first exhibition was intended to "demonstrate the generally high design quality which can be found in objects available in American stores," *Organic Design in Home Furnishings*, which was a much more extensive exhibition, also incorporated a design contest and

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<sup>33</sup> Noyes was trained as an architect by Walter Gropius at Harvard's Graduate School of Design and was a natural pick for this remarkable position at MoMA; he demonstrated his own appreciation for concepts of total design by accepting the position with the proviso that he be given sufficient time and funds to study the field of commercial design, and wrote to Nelson Rockefeller, a trustee of MoMA, of his desire to conduct an extensive study of the field through interviews with manufacturers and craftsmen. Bruce, 54.

<sup>34</sup> Elodie Colter to Calder, July 30, 1941 and Noyes to Calder, September 26, 1941, Calder Foundation. The precise reason for this request is unknown; it may have derived from Noyes' admiration of *Lobster Trap and Fish Tail*; Barr's friendship with Calder, or other mutual acquaintances, such as Sert and Sigfried Giedeon, whom Noyes would have known at Harvard.

prominently displayed the winning entries.<sup>35</sup> These included prototypes for modern furniture, such as revolutionary molded-plywood chairs by Aero Saarinen and Charles Eames, that would remain popular for decades after their initial mass production in the postwar years.<sup>36</sup> [figs. 75-77]

The unique circumstance of an art museum exhibiting large quantities of modern furniture seems to have brought out an interesting object lesson with regard to Calder's mobiles. Shortly after *Organic Design in Home Furnishings* opened, Noyes wrote a letter to explain that he had attempted to display one of Calder's mobiles, a "large mobile with wire fans," in the outdoor section of the exhibition, but had been forced to remove it, "since the fans kept getting into peoples' eyes and there was no place for using it on a pedestal."<sup>37</sup>

Noyes' explanation that there was "no place for using it on a pedestal" is particularly interesting when considered in light of the installation photographs of the show. These photographs demonstrate the relative compactness of the outdoor living area that Noyes referred to as having no space for a pedestal for Calder's mobile, and suggest that he was interested in integrating Calder's mobiles into the exhibition's assemblages of home furnishings, rather than simply displaying them at more of a remove, in the otherwise relatively un-crowded area of the sculpture garden adjacent to the special outdoor portion of the *Organic Design in Home Furnishings* exhibition. [fig. 76] Another

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<sup>35</sup> Noyes, "Useful Objects of American Design Under \$10," *American Art Week* October 1940, in Bruce, 60.

<sup>36</sup> Following the war, these and other designs produced for the show would be manufactured to lasting popularity by such companies as Knoll and Herman Miller. Bruce, 73-6. In the shorter term, Noyes re-used some of the elements of the exhibition in subsequent wartime exhibitions at MoMA.

<sup>37</sup> Noyes to Calder, September 26, 1941, Calder Foundation. Noyes added "Alfred Barr likes it every much, so perhaps it might be exhibited."

passage of the letter and photograph of the interior installation of the exhibition substantiate the notion that Noyes' approach to Calder's mobiles was premised upon a desire to relate them foremost to trafficked and occupied areas. Noyes reported that a second mobile, "all of shiny metal fins, is in the exhibition now and in a very dramatic spot and receiving a lot of attention."<sup>38</sup> Interestingly, the "drama" of the spot, apparently, had to do with its conspicuousness in the furniture display, rather than an otherwise architecturally compelling or central location in the building. [fig. 77]

Noyes' description of the mobile's position as "dramatic" highlights how, within MoMA's unique physical and intellectual framework, one man's drama could be another's regression: Noyes' display of Calder's work paled in comparison to the others he had previously achieved, as in the museum's stairwell, where *Lobster Trap and Fish Tail* provided the public with an "inexhaustible shadow-play," and even in the confines of his own studios, thanks to the interest and artistic interpretation of Matter. [figs. 70-71]

The regression that this use of Calder's work seems to have entailed demonstrates how significantly the generously-sized and light-bathed galleries of MoMA could affect an effort to interrelate modern art, architecture and industrial design; while the space was large enough to exhibit an unparalleled corpus of modern furniture, it also detracted from the intimacy and drama that could be produced by the interrelation of furniture and avant-garde art, such as that which the architect Frederick Kiesler, an acquaintance of Calder's from his time in Paris, developed in 1942 for Peggy Guggenheim's intimate gallery *Art of this Century*. In the distinctly smaller and darker confines of Guggenheim's gallery, the architect designed an immersive viewing experience for gallery goers, replete with surrealistic furniture and apperati such as a ship's wheel connected to a rotating display

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<sup>38</sup> *Ibid.*

of Duchamp's art that permitted prolonged and mechanically aided examination of the artwork on display.<sup>39</sup> [fig. 78]

While Noyes' display of Calder's mobiles may have detracted from more prolonged or traditional contemplation of these works, and even suggested that they had a simple and decorative nature, he also led critical efforts at the museum to encourage handling modern objects as a way of understanding their aesthetic and everyday value. Significantly, this effort dovetailed with Calder's contemporary efforts, and support from the museum, to encourage museum visitors to handle his own work as a means of understanding its uniqueness. In March 1940, the same month that Barr hired Noyes, the director wrote to Calder to thank him for lending the museum a mobile that had been displayed in the sculpture garden with a placard that encouraged visitors to touch it. Barr explained that, during the course of its "long period" of display in the garden, "It has been one of the most interesting pieces in the garden and its label with the suggestion 'Please touch' has put naughty ideas in the minds of our visitors."<sup>40</sup>

When Calder received the honor of being the only American and youngest artist yet to receive a retrospective at MoMA, in the winter of 1943-44, he made the occasion another opportunity to encourage the handling of his works. Immediately prior to the opening of the exhibition, he and a group of friends, including Mondrian, Léger and Duchamp, gathered in the sculpture garden, and playfully interacted with some of the numerous mobiles installed there. [figs. 79-80, 103] At one point in the film of this

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<sup>39</sup> See Susan Davidson and Philip Rylands, *Peggy Guggenheim and Frederick Kiesler: The Story of Art of This Century* (New York: Solomon R. Guggenheim Foundation; Venice: Peggy Guggenheim Collection, 2004). The maquettes of Calder's and other avant-garde artists' work in Nelson's *Maison suspendue* might be another example of work that was given a dramatic if not dominating position in a modern interior design, although the *Maison suspendue* models do not appear to have had any furniture maquettes.

<sup>40</sup> Barr to Calder, March 25, 1940, Calder Foundation.

gathering, made by Herbert Matter, Duchamp went so far as to attempt to place a live cat on a large, flat element of one of the artist's early *Vane* mobiles. Inside the exhibition, Calder also recalled that he contradicted a guard whom he heard admonishing visitors for touching mobiles, and encouraged those present to touch his work. [fig. 81] This insistence on Calder's behalf is particularly compelling in light of the fact that the interior of the exhibition appears to have been a formal space in contrast to the casual feel of the gravel-strewn area for the display of Calder's works outdoors, which, as the film demonstrated, was in plain view of the tables and colored umbrellas of the outdoor café that the museum had installed during the war.

Although elements of humor pervade the footage and Calder's account of these two events at his retrospective, it cannot be denied that the actions served the serious purpose of emphasizing his works' solid engineering and mechanical ingenuity. This emphasis, in turn, would have served to counter the notion that, being non-figurative and easily transported from one site to another, Calder's works were merely decorative, even if they were difficult to relate to the traditional, sizeable and often pedestal-bound bronze or stone sculptural works displayed elsewhere at MoMA.

### **The Role of MoMA's Garden in Evolving Perceptions and Forms of Calder's Outdoor Sculpture**

While the program of the Design Department seems to have reflected or promoted Calder's own efforts to demonstrate how his work could be handled, even in a playful or inexperienced manner by members of the public, the contrastingly unfinished space of the museum's sculpture garden repeatedly proved, in the same years, to be fundamental to

demonstrating the potential of the artist's work to significantly influence public perceptions of and actions in modern architectural space.

The first inklings of this critical relationship date to early 1939, when Barr and John McAndrew, the curator of architecture, first designed the sculpture garden. At that point, Barr described an aspiration for the garden to function as an extension of the museum itself, referencing the fact that the portions of the building that the garden would border already boasted expansive glass facades. In January 1939, he circulated a confidential list of eleven prospective works to display in the garden plus one unique entry: the designation of a Calder "to be created by the artist."<sup>41</sup>

Although Calder was not in fact commissioned for a work for the inauguration of the garden (likely due to the significant contemporary commission constituted by *Lobster Trap and Fish Tail*), *Steel Fish* (1937), his first large mobile designed for the outdoors, was displayed in the garden in its inaugural exhibition. [fig. 82] In the proceeding six-year period, the garden would develop as a particularly fertile terrain for the artist's exposure to and opportunity to interrelate his work with the public and MoMA's building itself. The garden's spaces were regularly devoted to his work, including the experimental mobile with a "please touch" sign that Barr returned to Calder in March 1940; *Whale* (1936), one of the artist's earliest large-scale stabiles; and two additional commissions for standing mobiles, including one, *Man Eater with Pennants* (1945) that the artist designed, at the museum's request and through extensive experimentation and effort, to be aesthetically intriguing from both the elevated perspective of MoMA's upper galleries and the ground level. [figs. 83-84] It is also noteworthy that Calder's

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<sup>41</sup> "Tentative list of Twelve Pieces of Sculpture for Museum Garden," Notes of the Informal Meeting of the Garden Committee, January 1, 1939, Early Museum History Papers, Museum of Modern Art Archives, New York and Benes, 109.

retrospective was the first at MoMA to dominate much of the garden; at least six of his largest works were displayed in the space.

The bases for Calder's long-term relationship to MoMA's sculpture garden seem to be the works that the artist had avidly developed for and displayed in the outdoors since the early 1930s, when he purchased his first home in rural Roxbury, CT, and gained regular access to the outdoors for the first time in his career as an abstract sculptor.<sup>42</sup> The first of these were wind-activated mobiles with a variety of moveable elements, ranging from large, pendulous ones, such as those of *Steel Fish*, to lightweight vanes and flurries of easily-offset discs. [figs. 85-86] Calder displayed these works outdoors in 1934, at the Berkshire Playhouse, where their presence "on the lawn" was noted by a New York Times review of the exhibition, which was run by Calder's father (who lived in the Berkshires) and included a range of art, including traditional genres such as still life and portraiture.<sup>43</sup> The same year, at the Pierre Matisse Gallery, he displayed *Big Bird*, a prototypical large-scale stabile, alongside additional stabile maquettes, in hopes of acquiring commissions for stables as garden sculpture.<sup>44</sup> [fig. 87] The commissions for the homes of Charlotte Whitney Allen and James Thrall Soby, described in Chapter One, continued to develop this genre of his work in 1935 and 1936. In 1938, Calder and his wife collaborated with the photographer Herbert Matter in the making of a compelling series of images of the couple and their property in Roxbury, including several of *Steel Fish* and *Nine Discs*.<sup>45</sup> [fig. 88]

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<sup>42</sup> Rower, "Calder in Nature," 13.

<sup>43</sup> "Portraits Enliven Stockbridge Show," *New York Times*, September 9, 1934, N3.

<sup>44</sup> Rower, "Calder in Nature," 14.

<sup>45</sup> *Calder by Matter*, ed. Alexander S.C. Rower (Paris: Cahiers d'art, 2014), 66-75.

The existence of such a group of sculptures designed for and capable of withstanding the conditions of the outdoors undoubtedly influenced Barr's plans (albeit unrealized) to provide Calder the sole commission for the sculpture garden in 1939, as well as the museum's utilization of the garden as a display space for his sculpture during his 1943-44 retrospective. However, the nature of the garden itself also catalyzed a critical new approach to Calder's outdoor sculpture that had immediate implications for the popularity of his work in the site, as well as for other forms of public urban space.

Barr and McAndrew designed the garden in the spring of 1939 in a feverish session precipitated by the unexpected donation of Rockefeller land to the previously-planned garden only weeks before the museum's new Goodwin-Stone designed building was to be opened to the public. Due in part to budgetary strictures, they organized the space as a series of outdoor "rooms" separated by temporary partitions made of woven grasses and lightweight wood, and augmented by large-scale colored-gravel patterns on the ground.<sup>46</sup> [figs. 89-90] Although this installation was considered to be merely temporary, permanent plans were forestalled for years, and during the war, it was modified by being partly converted into a canteen for servicemen. Likely due to the impermanent nature of the space until 1953, when it was completely transformed by Philip Johnson's design to evoke a piazza, and rechristened as the Abby Aldrich Rockefeller Memorial Sculpture Garden, the physical history of the space in the 1940s is scant. [figs. 91-92] However, what records that do exist indicate that numerous sculptures remained on display there throughout the decade; Calder's in particular rotated on a fairly

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<sup>46</sup> Benes, 109. Benes emphasizes that the Garden Committee preferred to keep the design "elastic," but to focus upon the space as an outdoor gallery, rather than a "garden."



regular basis; and some partitions – whether or not original from 1939 - remained in place. The unfinished nature of the site brought about casual attitudes and activities, such as a reference to it by the architecture critic Lewis Mumford as a “yard,” and some social, and perhaps even indecorous activities, including a serviceman’s dance during the war.<sup>47</sup>

The unfinished nature of the sculpture garden allowed Calder to position a large group of mobiles in compelling relation to the museum and one another on the occasion of his 1943-44 retrospective. Significantly, this display of Calder’s work seems to have focused curators and other art world figures’ attention upon the implications of his work in architectural and public contexts.

Calder’s retrospective was remarkable for the fact that he was the first American, and the youngest artist ever to be so honored by MoMA. However, because the show presented Calder’s toys, housewares, and miniature circus along with his abstract mobile and stabile sculptures, it left some reviews focused mainly upon the strangeness of the whole affair. One claimed “The whole business is like walking through a wave of laughter and about as easy to describe. You come out of the museum surprised to see a world with its feet still on the ground.”<sup>48</sup> However, in spite of the fact that Sweeney did not emphasize the artist’s public art or interest in architecture in his catalog essay (which was the first serious account of Calder’s career), these themes did crop up in two significant critics’ assessments of the show. Clement Greenberg, in his review of the exhibition in the *New Yorker*, explained that Calder’s work had an impressive effect in

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<sup>47</sup> Mumford, “Design for Living,” *The New Yorker*, June 25, 1949, 72 in Yunn Chii Wong, “Fuller’s DDU Project: Instrument, Art or Architecture? (Heroic Design vs ad hoc pragmatism),” in *Transportable Environments*, ed. Robert Kronenburg (Taylor and Francis, 1999), 61.

<sup>48</sup> “Down Mobile Way,” *Cue, the Weekly Magazine of New York Life*, 12 no. 42 (October 16, 1943), 2, Calder Foundation.

the museum's spaces, in spite of the fact that "The MoMA is a large and gorgeous institution." Although he found much of the mobiles and stabiles suspect, characterizing (them in a separate review) as simplistic takes on "flora and fauna," he admitted, "it's simply that few artists have the scope and vitality to support such large-scale presentation" as a retrospective at the modern museum.<sup>49</sup> After the end of the retrospective (which was extended due to its popularity) the historian and iconologist Erwin Panofsky seconded these thoughts, when he wrote to Sweeney to explain how much the outdoor installation had struck him.<sup>50</sup> "The big things in the courtyard," he wrote, "looked like railroad signals in an advanced state of intoxication; it was quite magnificent."<sup>51</sup>

Panofsky's comments are interesting to consider in comparison to the few records of the garden on the occasion of Calder's retrospective. What aspect of the installation did Panofsky find "magnificent" and "signal-*like*?" Perhaps it was the portion of the garden depicted in the striking photograph by Soichi Sunami, a photographer who frequently photographed exhibition installations for MoMA and was also an artist in his own right. [fig. 93] This oft-reproduced nighttime photograph of the retrospective from the perspective of the sculpture garden depicts three of Calder's standing mobiles – *Spider* (1936), *Steel Fish* (1934), and *Spherical Triangle* (1939) - arranged in a straight row against the plate glass windows of the interior first-floor galleries. [figs. 94, 47-48

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<sup>49</sup> Clement Greenberg, "Alexander Calder: Sculpture, Constructions, Jewellery, Toys, and Drawings," *The Nation* no. 157 (October 23, 1943) and *idem.*, "The Art galleries, 'Alexander Calder' and Some Others," *The New Yorker*, October 9, 1943.

<sup>50</sup> Sweeney would be appointed Head of Painting and Sculpture in 1945.

<sup>51</sup> Erwin Panofsky to James Johnson Sweeney, January 7, 1944. Quoted in Bernice Rose, "After the War: Transatlantic Calder," in *Calder After the War* (London: Pace Gallery, 2013), 19.

and 94] In the photograph, these mobiles are seen in silhouette against these interior spaces, and each one appears to have been centered in the floor-to-ceiling steel-framed windows that spanned the galleries.

The photograph seems to demonstrate that the installation of Calder's works in the garden was a strong statement with regard to the value of his work in relation to the unique glass-enclosed galleries of MoMA's Goodwin-Stone building. The centering of these three works behind the large glass walls of three separate portions of the interior galleries seems to underscore their unique characteristics as sculptures that are legible and provocative in silhouette against the glass, even while remaining distinctive – *Spider* being a tripod-based work, *Steel Fish* supported by a central pole, and *Spherical Triangle* being more self-contained and vertically oriented. By comparison, a 1939 photograph of the first installation of MoMA's sculpture garden does not depict any works positioned in such proximity to the building. [figs. 89-90] As such, Calder's outdoor installation may well have represented a first in the large space where sculptures were otherwise displayed in relative isolation from one another, at a remove from the building.

Two other records of the retrospective installation in MoMA's garden depict other potential sources of Panofsky's intrigue. One portrays a 1935 mobile that Calder designed for the choreographer Martha Graham; this work, as seen from one of the museum's upper galleries, is a cascade of painted metal discs, apparently floating against the backdrop of the city. [fig. 79] But what may have been most impressive to him were the engineering feats that the outdoor display of mobiles presented. These can be gleaned from the Matter film of the artist preparing for the exhibition in the company of Yves Tanguy, Mondrian, Sweeney and Duchamp. When Calder offsets one tall mobile on a

tripod base, its elements pivot and bob around the base so sinuously that, as the artist crouches down beneath one of them to pet a cat wandering around the garden, one registers surprise that he is not struck by a whirling piece of metal.<sup>52</sup> The elements of *Vane* and *Spider*, which Sweeney and Duchamp play with, also demonstrate fluidity and range.<sup>53</sup>

### **The Aftermath of Calder's Retrospective and Efforts to Develop New Public Art**

Soon after Panofsky paid his compliments to Sweeney, the museum affirmed its impression of Calder's work in the garden by embarking on an intriguing approximately one-year effort to commission the artist for the first two sculptures to be designed specifically for the space. The first of these commissions seems to have produced *Four and Three*, and the work was displayed as of June 1944.<sup>54</sup> [fig. 96]

*Four and Three* is likely to have been immediately recognized as a new and assertive form of mobile. Approximately nine feet in diameter and seven feet tall, the work is comprised of a constellation of large black sheet metal elements of varying size and slightly ominous shapes, mostly elongated rhomboids, which had the potential to

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<sup>52</sup> This footage is reproduced in Roger M. Sherman, "Alexander Calder," *American masters. Season 12, episode 6, Season 12, episode 6*. Stills from the film are also reproduced in the endpapers of Achim Borchardt-Hume, et al., *Alexander Calder: Performing Sculpture*

<sup>53</sup> Given these works' highly animated qualities, it is interesting to consider the ease of these works' movement and Calder's contemporary description of them, according to a voiceover of this footage from the PBS documentary on Calder, as "my machines." PBS, "Alexander Calder," *American Masters* (June 17, 1998).

<sup>54</sup> Although the piece has not been identified in extant literature, a letter in the archives of the Calder Foundation indicates that it was the standing mobile *Four and Three* (1944), alternatively called *Les Boucliers*, which is now in the collection of the Centre Pompidou. James Thrall Soby to Calder, June 9, 1944, Calder Foundation. Rose describes this piece (which she does not name) as a commission that Sweeney told Calder "was not loved." Rose, 18.

overlap with one another as they pivoted from a complex system of interlocked rods balanced on a tripod. It was one of the largest assemblages of sheet metal that the artist had ever managed to cantilever into a space of those dimensions. The size and heaviness of *Four and Three* suggested the artist's eager embrace of a commission for the garden as an opportunity to develop what Sweeney had recently described as an interest in exploring how the elements of his largest stabiles could translate "into the mobile field."<sup>55</sup>

The committee's response to *Four and Three* evinced a noteworthy mix of perplexity and renewed commitment to achieving a significant commission for the museum garden. In June 1944, James Thrall Soby, (the artist's former patron from Connecticut who was serving temporarily as the Director of the Department of Painting and Sculpture) wrote to Calder about the piece, suggesting that it seemed a "groggy" version of the artist's work, and notifying him that plans were already being made to exchange *Four and Three* for *Spherical Triangle*, due to the fact that "the Committee feels that [*Spherical Triangle* is] a much more important mobile for us to have."<sup>56</sup> [fig. 95] The Committee's preference for *Spherical Triangle* (1939), a more modestly-scaled eight-foot-tall assemblage of four large sheet-iron forms branching off of an elegant and compact base, may have been informed by Sweeney, who had described it, in the catalog

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<sup>55</sup> Sweeney, *Alexander Calder*, 1943, [http://calder.org/life/system/downloads/1951\\_Sweeney.P0352.PDF](http://calder.org/life/system/downloads/1951_Sweeney.P0352.PDF)

<sup>56</sup> Soby had taken up residence in New York in 1940 and Barr had become his mentor, as Austin had been when he resided in his native city of Hartford. The museum also wished to exchange, "return" or "cancel" both of the other pieces that it had commissioned Calder for, an "initial piece" and a necklace, for other works. They hoped to exchange these works for the small stabile *Spiny*. Interestingly enough, this work, like *Spherical Triangle*, had been included in the retrospective; Herbert Matter's dramatic overhead photograph of *Spiny* casting a dramatic shadow on a Manhattan sidewalk had been used for the cover of the retrospective's catalog. Soby to Calder, June 9, 1944, Calder Foundation.

of Calder's retrospective, as exemplary attempt by the artist to interrelate the "large black sheet-iron forms" of his stables to new mobile work.<sup>57</sup>

Surprisingly, within less than a year, the committee reversed its stance and commissioned Calder for another, much larger work for the garden. It requested that Calder create another standing mobile that would be intriguing to museum visitors looking into the garden from the upper windows of the galleries, and at ground-level. Calder's response was *Man Eater with Pennants* (1945), a surrealistic constellation of rods that connected to two large rounded steel plates, two scythe-like steel forms, and several other sizeable biomorphic elements. [figs. 83-84] At 14 feet in height and 30 feet in diameter, *Man Eater with Pennants* was the artist's largest work to date, as well as one of his most dangerous, due to the fact that its long pivoting rods were attached to heavy and, in some cases, sharp and thick elements. Not surprisingly, its installation demanded more attention and space within the garden than any prior work in the history of the museum.<sup>58</sup>

In spite of the museum's own arrangement of the commission, and conception of the piece in relation to its architecture and outdoor space, in the days prior to installing *Man Eater with Pennants*, apprehension mounted about the size of the work. Calder knew this, and expressed righteous indignation. In correspondence written immediately prior to its installation, Calder referred to *Man Eater with Pennants* as "a monster," and explained that its size was giving museum staffers "cold feet."<sup>59</sup> He also indicated that

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<sup>57</sup> Sweeney, *Alexander Calder*, 1943, [http://calder.org/life/system/downloads/1951\\_Sweeney.P0352.PDF](http://calder.org/life/system/downloads/1951_Sweeney.P0352.PDF)

<sup>58</sup> "New Acquisitions Included in Exhibition at Museum of Modern Art," MoMA Press Release June 18, 1945.

<sup>59</sup> Calder to Keith Warner, June 1, 1945, Keith Warner Papers, 1935-1975, Microfilm Reel 4995, Archives of American Art, Smithsonian Institution, Washington, D.C.

the threat of MoMA's backing out was significant enough that he had weighed his options, and he vowed to continue with the project, regardless of the museum's ultimate decision.<sup>60</sup>

Some of Calder's faith in his *Man Eater with Pennants* may have derived from his recent correspondence with a British architect named Serge Chermayeff, who had spent the war in New York, where he served as a lecturer and a guest curator at MoMA. In April 1945, when Calder was likely at work on *Man Eater with Pennants*, Chermayeff wrote him a letter explaining that he and a group of his architecture students were at work on a model of a small, modern community for display in MoMA's upcoming *Tomorrow's Small House* exhibition, and requested that Calder "make a couple of mobiles or stabiles to that scale with which to cheer up community space and get something bright and sparkling among the 1/16" children." He suggested four works that had been exhibited in the retrospective as "the things that seem to fit best into the context of our general scheme:" a hanging mobile, a stabile, a standing mobile, and also noted that Calder's *Mercury Fountain* might be a "adapted" to be the "piece de resistance" in the 25-meter circular area he had planned for the "great community plaza."<sup>61</sup> Calder corresponded with Chermayeff and asked for further details about the plan, indicating an interest in the project.

It is not clear whether the maquettes were ever completed or displayed, and it may in fact be the case that these were the maquettes that Calder reported that the wives of

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<sup>60</sup> The first of these requests may in fact have reinforced Calder's own faith in his *Man Eater with Pennants*; he vowed in a contemporaneous letter to the collector Ken Warner, who was his patron for a short period of time, that regardless of MoMA's decision, he planned to complete *Man Eater*. *Ibid.*

<sup>61</sup> Serge Chermayeff to Calder, April 23, 1945 and May 15, 1945, and undated postcard referencing May 25, deadline, Calder Foundation.

James Johnson Sweeney and Josep Lluís Sert, Laura and Moncha, were delighted with, and plucked away from a mediocre architect's model.<sup>62</sup> However, Chermayeff's request illuminates how the display of Calder's work in the MoMA sculpture garden seems to have influenced early postwar efforts to develop his work for public space. One of the works which Chermayeff suggested as a possible model for his community plan, a stabile named *Spiny* (c. 1939) had a unique history that seems to have prepared the way for Chermayeff's association of it with a large-scale public work, in spite of the fact that it was modestly scaled, with dimensions of 26 x 30 x 14 3/8 inches. (By contrast, the other works Chermayeff suggested to Calder ranged from approximately six to twelve feet.)

*Spiny* had likely caught Chermayeff's eye because the retrospective catalog's dustjacket had been based on *Spiny*'s silhouette. The design, by Herbert Matter, was based on an image of *Spiny* that he had created years before the show, in 1940, as part of an extensive meditation on the impressions that Calder's work gave when viewed in an outdoors urban environment. [figs. 99-101]<sup>63</sup> The images depict four small stables on the sidewalk outside Calder's Manhattan studio on a bright day. Their slender, arching dark metal components cast intriguing shadows on the bright concrete, both reflecting and transforming the artist's creations. Joan Marter has described a similar contemporary stabile, *Gothic Construction from Scraps* (1936) (a work that *Spiny* particularly echoes), as an early example of the sort of interest in architectural forms and spaces that Calder

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<sup>62</sup> The works Laura Sweeney and Mocha Sert rescued from an architectural model informed Duchamp's suggestion that Calder send a show via the postal service to Louis Carré. Calder, *Autobiography*, 188.

<sup>63</sup> This series can be seen as an outgrowth of the photographer's efforts, since the mid 1930s to use photography to examine and highlight figures that Calder's work cut against the sky or open fields of Roxbury, and the shadows that they cast upon the floor and walls of Calder's studio interior. See figs. 87-91 and 100-103.



developed in such late-career works as *Flamingo*, a 53-foot tall stabile in Chicago's Federal Plaza that is often described as an architectural sculpture.<sup>64</sup> [figs. 102-103]

Matter's photograph of *Spiny*, and Chermayeff's apparent response to the illustration based on it, suggest that very soon after, if not contemporaneous with, Calder's development of these small stables, he understood that they had appeal beyond the confines of a gallery setting. This sense may well have been bolstered by the fact that Calder's early large-scale stabile *Whale* (1937) spent more time in the sculpture garden during the 1940s than any other piece by the artist, providing ample opportunities to consider how stables' forms could play off architecture and, as two photographs of the work in bright sun and snowdrifts demonstrate, be affected, both tangibly and illusionistically, by atmospheric conditions.<sup>65</sup> [fig. 104]

### **MoMA's Promotion of Calder and the "New Monumentality"**

Only four months after Chermayeff sought out Calder's collaboration in the model for his small community, Philip Goodwin, the architect who designed MoMA's building and later served as its curator of architecture, wrote to Calder in a similar vein. He explained, "The museum has got me to get together a show on War Memorials, and of course the first sculptor I thought of in this country was you."<sup>66</sup> As complimentary as this letter may now seem, by the time Calder received it, it likely paled in comparison to the numerous communiqués that he was contemporaneously receiving about the possibility

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<sup>64</sup> Joan Marter, "Alexander Calder's Stables: Monumental Public Sculpture in America," *American Art Journal* 11 no. 3 (July 1979), 77 and 85.

<sup>65</sup> A museum Press Release from February 1, 1967 states that *Whale* (1937) "has been almost continuously on exhibition in the Museum's sculpture garden since 1941. Originally a loan from the artist, it was given to the museum by Calder in 1950."

<sup>66</sup> Goodwin to Calder, October, 15, 1945, Calder Foundation.

of developing large-scale works for new public space; since the prior spring, Calder had been in extensive and exciting dialogue with yet another prominent architect, a Brazilian named Henrique Mindlin, who had vowed, after the artist made him a small mobile to take home to Rio de Janeiro, to start a “Calder craze in Rio.”<sup>67</sup> In 1945, Mindlin published an essay in a prominent Brazilian art review, which he shared with Calder, which concluded:

Calder’s work offers extraordinary possibilities for the integration of sculpture into the current architectural scene. Just imagine one of his huge mobiles hanging in the lobby of one of our new buildings, for example at the Ministerio da Educacao... imagine it being touched lightly by the breeze, filling the illuminated space with its constantly renewed rhythms, and you can understand the importance of Calder’s contributions not only to the new architecture, but particularly to the Brazilian architecture of sun and open spaces.<sup>68</sup>

The Ministry of Education and Health was a landmark of modern architecture; a 16-story tower designed by Oscar Niemeyer, a student of Le Corbusier, in collaboration with Lucio Costa and the renowned modern landscape architect Roberto Burle-Marx. [fig. 105] Mindlin’s relation of Calder to the building implies that he and the artist both hoped to find Brazilian architects to make commissions that would far exceed the scale and, arguably, the prominence of those Calder had completed for MoMA.

Although Mindlin’s efforts sought to position Calder in a physical context that would best anything MoMA had offered him, the architect’s encouragements related to a strain of thought that Calder’s dear friends Léger and Sert had developed while living in America, and frequently socializing with Calder, during the war. In 1943, Léger and Sert had collaborated with the architectural historian Sigfried Giedeon (who, as discussed at the beginning of this chapter, visited Calder’s first retrospective at the Smith Art Gallery

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<sup>67</sup> Mindlin to Calder, August 1944, Calder Foundation, in Roberta Saraiva, *Calder and Brazil: The Tale of a Friendship* (São Paulo: Cosac Naify, 2006), 35.

<sup>68</sup> Henrique Mindlin, “Alexander Calder,” *Revista de Arte* 3 (Rio de Janeiro: Escola Nacional de Belas Artes, 1945), in Saraiva, 35.

in 1938) in writing an article on the future of monumental art, “Nine Points on Monumentality.” In it, they argued that collaboration between architects, painters and sculptors would be essential to allowing modern spaces and buildings, the latter in particular being characterized by vast unornamented spaces, to “regain” socially critical “lyrical value,” rather than remaining unadorned and “strictly functional,” a term they clearly considered a misnomer.<sup>69</sup>

The wartime experiences of two of Calder’s peers, Isamu Noguchi and Naum Gabo, underscore the uniqueness of the opportunity that Calder had at MoMA to begin developing the “lyrical value” of the landmark Goodwin-Stone building. Each man was a prominent abstract artist whom Calder knew; he and Noguchi had been friends since the 1920s and Calder met Gabo in England in 1937. Both men had aspired to design work for public space well in advance of Calder. Gabo had designed not only abstracted public monuments, but also architectural complexes including public art, since his first embrace of abstract art in 1920s Russia. [figs. 106-107] Noguchi had developed prototypical abstract monument and earthwork designs that he also described as “monuments” in the early 1930s, and continued to develop these designs throughout the 1940s. [figs. 108-109] However, during the war, neither man had the opportunity to develop their work in the context of the extensive collaborative experimentation that characterized Calder’s activities at MoMA. Instead, these artists spent these years creating logistically complex designs that tended to read more as stand-alone spaces than works that could compliment or enliven modernist architectural spaces, in the vein of Mindlin, Giedeon, Sert, and Léger’s suggestions, and as Calder’s works at MoMA were proven to do.

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<sup>69</sup> Sigfried Giedeon, Josep Lluís Sert and Fernand Léger, “Nine Points on Monumentality (1943),” in Giedeon, *Architecture, You and Me: The Diary of a Development*, 50-51.

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In 1949, without obvious warning, MoMA removed *Man Eater with Pennants*, the outsized standing mobile that museum had commissioned for the garden in 1945 and had seemed, in its early development, to exemplify the fertile relationship and support that the institution had provided to the artist throughout the war years. [figs. 83-84] As Barr wrote in a painstaking and apologetic letter, the museum decided to dismantle the work on the basis of the fact that, in spite of extensive efforts by the artist and administrators, the piece was dissatisfactory when viewed from the ground-level, and took up too much space in the garden, thanks to the fence that had been installed to prevent free-swinging elements from injuring visitors. The space taken up by this questionable piece, he explained, could no longer be justified, in light of the Rockefellers' recently-announced plans to give part of the loaned lot to the Whitney Museum, which was constructing a new home adjacent to MoMA, and due to the commencement of construction of a small house by Marcel Breuer in another portion of the garden. [fig. 110] The dismantling of *Man Eater with Pennants* marked the end of an era: although MoMA had served as an incubator for ideas about the introduction and display of abstract art in public space for nearly a decade (from Barr's commission of Calder for the flag to advertise *Cubism and Abstract Art* in 1936), it would not commission any additional work from the artist after removing *Man Eater with Pennants*.

The end of this special relationship with MoMA was not devastating to Calder's opportunities to display and develop work for critical architectural public space because by the time the museum removed *Man Eater with Pennants*, the correspondence that the artist had begun with Mindlin in 1945 had brought about an opportunity to have a

retrospective exhibition in Brazil. This retrospective occurred at the Museum of Modern Art in the Ministry of Education in Rio in September and at the São Paulo Museum of Modern Art from October to November 1948. When Calder went to Brazil he found himself again surrounded by a group of individuals fascinated by how his work related to distinctly modern surrounds, their own designs, and the unique landscape of Brazil. The experience made a profound impression on Calder's approach to the scale and form of his work. Chapter Three examines the new characteristics that Calder's work took on in Brazil and how these positioned him in the new field of major post-war commissions for public abstract art.

## CHAPTER THREE

### **International, Mobile: Calder and Monumental Abstract Art, 1945-58**

For the latter half of the 1940s, Calder's correspondence with the Brazilian architect and arts promoter Henrique Mindlin kept alive the notion that he could become a renowned producer of public art in Brazil. [fig. 111] Finally, in 1948 Calder and his wife Louisa made a highly anticipated trip to the country.<sup>1</sup> Although Calder's trip to Brazil did not produce any of the commissions that he and Mindlin had hoped for, it did provide him with unique exposure to a vibrant arts scene that was in many ways unparalleled in its emphasis upon developing public spaces that integrated art and architecture. These interests seem to have influenced Calder; he left behind one of his largest and most ambitious hanging mobiles to-date, *Black Widow* (1948), for display in what would become one of the most distinctive modern buildings in the country, Rino Levi's as-yet-unfinished headquarters of the Instituto de Arquitetos do Brasil in São Paulo (1951). [fig. 112]

This chapter examines the development of Calder and his patrons' approach to public art from his highly-anticipated trip to Brazil to the end of the 1950s, when the artist recalled that he felt like a "big businessman" driving between three foundries that he had employed to fabricate three major commissions which would be unveiled within months of one another between 1957 and 1958: a motorized mobile for the reflecting

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<sup>1</sup> It was Louisa's first trip to Latin America; Calder had traveled there as a young man. Calder, *Autobiography*, 53-55.

pool outside the United States Pavilion at the 1958 World's Fair in Brussels; a 40-foot hanging mobile for the landmark International Arrivals Terminal at Idlewild Airport outside New York City (now J.F.K. Airport); and a standing mobile for the Paris campus of the United Nations' Educational, Scientific and Cultural Organization (UNESCO), one of the most prominent architectural projects of the postwar period. [figs. 113-115]

While each of these was a distinct form of mobile – one was ceiling-suspended, one interacted with jets of water, and another topped a large stabile – what was common to them was an ability to gain the attention of the viewing public from a distance. This ability to command, even demand, viewing and interrelating objects in a vast space starkly contrasted the majority of proposals and examples of public sculpture that were put forth in the same period. Although many sculptors and critics in the late 1940s and early 1950s were hopeful about the prospect of new forms of monumental sculpture, many proposals failed.<sup>2</sup> By the late 1950s prominent art world figures also began to claim that large-scale nonfigurative sculpture was more in line with decoration than fine art, and asserted that the post-war efforts to develop new monumentality should encourage modestly-scaled work, such as the relatively human-scale contemporary output of David Smith and Henry Moore.<sup>3</sup> [figs. 117-118]

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<sup>2</sup> The two most prominent collective efforts to develop monumental-scale abstraction were the Contest for the Monument to the Unknown Political Prisoner, run by the London Institute of Contemporary Art in 1953, and the development of the UNESCO headquarters in the late 1950s. The final section of this chapter examines these efforts.

<sup>3</sup> On the human-scale work of Smith, see Candida Smith, "The Fields of David Smith," in *The Fields of David Smith* (Mountainville, New York: Storm King Art Center, 1999), 17-38. Herbert Read emphasized the ability to apprehend the tactility of sculptural surfaces in his 1956 survey of modern sculpture, and stated that work overly focused upon delineating space became uncomfortably close to the status of mere "wrought ironwork." Herbert Read, "The Art of Sculpture (1956)" in Alex Potts, ed., *Modern Sculpture Reader* (Leeds and Los Angeles: The Henry Moore Institute and the J. Paul Getty Museum, 2007), 206. The critic Clement Greenberg also emphasized works of more modest scale as the only ones capable of providing a "sense of concretely felt, irreducible experience in which our sensibility finds its fundamental certainty." Greenberg, "The New Sculpture (1949)," in Potts, *Modern Sculpture Reader*, 109.

This chapter examines the evolution and implications of Calder's distinctive interest and ability in creating abstract public work that summoned and directed attention across vast spaces. This interest was cultivated through interrelated collaborations that first crystallized around the time of his trip to Brazil in 1948. The first case studies in this chapter examine the interrelation between the exposures and interactions of Calder's trip to Brazil, and the new forms of large-scale abstract work he developed and displayed in the course of the trip and its immediate aftermath. The chapter's remaining case studies demonstrate how Calder's practice intersected with and grew from the efforts of other critical architectural and urban planning projects focused on developing new forms of civic space, ranging from a landmark modern university in Caracas, Venezuela, to efforts to redevelop settings of both diplomacy and leisure in Europe.

These intersections were catalyzed by and supported Calder's remarkably extensive network of friends and associates involved in the development of these spaces. While these connections have always been noted in Calder literature, the commissions they catalyzed have not featured prominently in critical assessments of the artist's career. In fact, these commissions were often ignored or derided by artists and critics alike, as the majority of other prominent sculptors of Calder's generation tended to work in isolation either by choice or as a result of the war. As a result, they honed fabrication methods and narratives about the significance of their work that distinctly contrasted Calder's. This chapter re-characterizes Calder's little-understood collaborative efforts in the development of distinctive postwar public spaces as a concerted and self-critical effort in its own right. Calder not only agreed to provide artwork for the new forms of public space that his networks sought to develop, but also modified his designs,



fabrication processes and narratives about his work in ways that strengthened its actual and anticipated effects upon and functions in these spaces. These unusual efforts provided Calder with experience in creating monumental-scale works, as well as an interest in the creative possibilities and challenges their creation entailed. This experience and interest would prove critical in the 1960s and 1970s, when midcentury approaches to sculptural production and urban design were largely overthrown.

### **Calder's First International Postwar Exhibitions and the Evolution of His Mobiles, 1946-49**

Calder's recollection of his trip to Brazil in his autobiography does not mention the prospect of commissions that it had entailed, but it does emphasize that the visit brought him and his work into contact with some of the most important modern architects and buildings in Brazil. Calder's first exhibition in Brazil took place in Rio de Janeiro's Museum of Modern Art, which was housed in the renowned Ministry of Education and Health. [figs. 105 and 119] Significantly, he described the building as a collaboratively designed building which, on occasion of his own show, became a site of renewed collaboration, between the Ministry's designers and his own art. He wrote that his exhibition was "on the second floor of the Ministerio do Educacao, which I consider one of the most beautiful buildings going, influenced by Le Corbusier, with supporting columns under it. It was built and designed by Niemeyer, Costa, Moreira, and others."<sup>4</sup> He also reported that Niemeyer himself, along with the landscape architect Roberto

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<sup>4</sup> Calder, *Autobiography*, 201. Styliane Philippou, 382-83.

Burle-Marx, who had designed the plaza for the Ministry, swept in and personally installed the show.<sup>5</sup>

Although the site of Calder's second exhibition in Brazil, at the Institute of Art in São Paulo, was not in a landmark building like the Ministry, the artist did describe São Paulo in architectural terms too, reporting that, while there, he frequently socialized with modern architects, in particular, Rino Levi, whom the artist singled out as a pioneer of modern Brazilian architecture and one of the first people to host him in São Paulo. Calder's connection to Levi, like that with Mindlin, dated to the war years in the United States; the pair had become friends during the conflict, and Levi visited Calder's home in Roxbury.<sup>6</sup>

Calder's praise for the Brazilian Ministry of Health and Education in his autobiography is likely to reflect the site's longstanding reputation in international art and architectural circles. Efforts to integrate the arts on a major and public scale had been a focal point of Brazilian architectural practice since the initial design of the Ministry in the early 1930s, and remained strong at the time of Calder's visit. The Ministry boasted Niemeyer-designed rugs, rooftop gardens, commissioned murals, vast mosaics, and other commissioned artwork and furniture; the Brazilian minister of culture Gustavo Capanema called the building "a work of art and a house of work."<sup>7</sup>

The Ministry and its developers had also been a subject of keen interest in New York since 1939, when Niemeyer and Costa created a renowned Brazilian Pavilion for

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<sup>5</sup> Calder, *Autobiography*, 201.

<sup>6</sup> *Ibid.*, 202.

<sup>7</sup> Philippou, 383.

the 1939 New York World's Fair. [fig. 120] It is likely that Calder visited or heard of this pavilion, because, from 1938 to only weeks before the opening of the Fair, he had worked to develop another of the most highly anticipated attractions of the Fair: the *Water Ballet* for the Consolidated Edison Pavilion.<sup>8</sup> In fact, the Brazilian Pavilion may have been of particular interest to Calder. Like Sert's Spanish Pavilion had only two years prior, the Brazilian Pavilion also successfully married cutting edge architecture and large-scale artwork to political ends. As Stylianne Philippou explains, it "prominently displayed [artist Candido] Portinari's images of Brazil's ethnically and racially diverse society," and the prominence of these images also made a profound political assertion: "that the Brazilians' alleged lack of discrimination made them morally superior to the technologically more advanced countries where systematic repression of racial minorities was still practiced."<sup>9</sup>

The unique architectural scene of Brazil, and its implications upon the development of modernist public art, remained a subject of interest in the United States during the war. In 1943, MoMA's curator of architecture Philip Goodwin organized an extensive exhibition devoted to Brazilian architecture, and Calder reported that he had visited it and been particularly impressed by an aerial photograph of Rio de Janeiro.<sup>10</sup>

The exhibition also featured a sculptural commission for the Ministry, Jacques Lipchitz's

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<sup>8</sup> On Harrison's publicity of the *Water Ballet*, see Chapter Two, note 30. A sketch of the (unrealized) design was featured in the Fair's *Official Guidebook* and sketched on the stationary of Consolidated Edison. *Official Guidebook of the New York World's Fair 1939*, (New York: Exposition Publications Inc., 1939), 178 and Clarence L. Law to Edward Hickey, May 22, 1939, New York World's Fair 1939 and 1940 Incorporated Records, Manuscripts and Archives Division, New York Public Library, Box 1249, Folder 14. Sweeney, "Alexander Calder: Movement as a Plastic Element," 29; Calder, "A Water Ballet."

<sup>9</sup> Philippou, 384. The Pavilion also attracted attention for its pond of Amazonian water lilies, snake pit and dance floor. The latter may have been particularly interesting to Calder, who was renowned for his long-abiding love of social dance. Philip Goodwin recalled, "there were a number of excellent modern buildings at the Fair, but none were more light-heartedly elegant than the Brazilian Pavilion." Saraiva, 34.

<sup>10</sup> Saraiva, 34, and Philip Goodwin, *Brazil Builds* (New York: Museum of Modern Art, 1943).

*Prometheus Strangling the Vulture*, which MoMA's curator of architecture Philip Goodwin had suggested in 1942 and supported extensively.<sup>11</sup> [fig. 121]

Distinctions between the preparations for and reactions to Calder's exhibitions in Brazil and his only prior postwar foreign exhibition, at the Galerie Louis Carré in Paris in 1946, suggest that these prominent and long-running emphases upon the significance of Brazil's public art and architecture encouraged the artist to look upon his Brazilian experience as an opportunity for significant reinvention or evolution, particularly where creating large-scale and publicly-oriented art was concerned.

Unlike Calder's exhibition in Brazil, the Carré show's origins, development and effect upon the public were all inflected by the experience of the war. During the war, Calder had taken to fashioning small-scale objects made from metal scraps. Shortly after the armistice, he had shown some of these to Marcel Duchamp. Duchamp's immediate response was, "let's mail these little objects to Carré, in Paris, and have a show." Calder recalled the Carré show "gave birth to a whole new race of objects that were collapsible and could be taken to pieces" to fit into packages within parcel post size limits – "18 inches long with a circumference of 24 inches."<sup>12</sup> In one instance, he fit 37 miniature mobiles and stables into six packages within the allowable parcel post size limits.<sup>13</sup> He sent numerous letters with complex diagrams for Carré's staff to use when assembling his work.

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<sup>11</sup> The work was publicized at MoMA again in 1944, when Lipchitz ended the project after it was enlarged to what Lipchitz considered to be woefully insufficient proportions. Interestingly enough, Lipchitz was the only one non-Brazilian Niemeyer considered commissioning for a work of art for the Ministry of Health and Education. John Rewald, "Jacques Lipchitz's Struggle," *Bulletin of the Museum of Modern Art* 12, no. 2, (November 1944), 7.

<sup>12</sup> Calder, *Autobiography*, 188.

<sup>13</sup> Calder to Carré, 19 July 1945, Calder Foundation, in Prather, 227.

As 1945 drew to an end, Carré began to push the show in a new direction.

Although as early as August 1945 Calder was attempting to arrange for special diplomatic concessions to send larger pieces in outsize packages to Carré, a letter from Carré dated November 1945 suggests that, as the months wore on, the gallery owner had come to feel that such work should be the show's focus.<sup>14</sup> As he explained,

"I am enthusiastic about the group, but I don't believe I have enough large pieces. If you want to occupy two rooms of my gallery, one of which measures 9 x 7 meters, it is absolutely necessary to have sculptures of great proportions."<sup>15</sup>

Calder capitulated to Carré's requests, and produced a number of large-scale mobiles that would become centerpieces for the show. Carré, in turn, featured four of these large works in the only full-page, color lithographs of the nearly 50-page catalog. [figs. 122-123] These works were standing mobiles; two of them, *Lily of Force* (1945) and *Baby Flat Top* (1946), reflected Calder's more recent experimentation with large elements of sheet-metal suspended parallel to the ground; like *Man Eater with Pennants*, which Calder had produced on commission for MoMA only one year prior, *Lily of Force* and *Baby Flat Top* possessed minimal metal stands that supported broad planes of sheet

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<sup>14</sup> Calder to Sweeney, July 5, 1945, Calder Foundation; Dudley to Sweeney (forwarded by Sweeney to Calder) July 9, 1945, Calder Foundation; Calder to Carré July 19, 1945, Calder Foundation.

<sup>15</sup> Carré to Calder November 27, 1945, Calder Foundation. This shift in focus away from the numerous small pieces Calder had already sent may be attributable to Carré's receipt of the exhibition catalog from Calder's retrospective at MoMA. Several of the large-scale mobiles the catalog featured, such as *Lobster Trap and Fish Tail* (1939) (at more than nine feet in length, one of Calder's largest mobiles to-date and his first publicly-displayed commission) had simple and flexible joints, usually figure-eights formed by the intersection of two loops of wire. It is not difficult to imagine Carré hoping Calder would design collapsible versions of such grand pieces for shipment to Paris. Carré would repeat his request for large pieces, mobiles specifically, in another letter dated December 1945. Carré to Calder, December 29, 1945, Calder Foundation, referenced in Prather, 228. The late Terry Roth of the Calder Foundation stated that a thorough review of the Calder-Carré correspondence would be necessary to determine whether Carré received the MoMA catalog. However, as Prather notes, "Sweeney helped to supply information [for the Carré show] on the American end," and, considering that Sweeney's essay for the retrospective is summarized in the Carré catalog, it seems likely that Carré saw the entire retrospective catalog. Prather, 227.

metal hanging parallel to the ground, and the same types of long, ornament-bearing wires arising from large sheet-metal elements.

These floor-bound mobiles in particular seem to have played a key role in the show's function as a form of reprieve from the daily realities of postwar France. Calder seems to have welcomed and anticipated this function; at his request, the Preface to the catalog was the recollection that the French philosopher Jean Paul Sartre had written of his 1946 visit to Calder's studio. Sartre celebrated mobiles as a source of connection to another world: he wrote that they "feed on air, they breathe, they borrow life from the vague life of the atmosphere," and emphasized that neither Calder, their creator, nor the mobiles themselves could foresee or entirely control their movement.<sup>16</sup> Notably, in his later account of the Carré show, Calder described his floor-bound mobiles as particularly key to his ability to alleviate a grim aspect of contemporary life: when the power went out in the gallery due to "postwar economy measure[s]" he set a candle "on the floor under an object with a multitude of small leaves and made it rotate," casting evocative shadows about the space.<sup>17</sup>

Two particularly eloquent responses to the Carré show further demonstrated how its floor-bound mobiles helped transform the space to a point that it seemed to be a true *terra incognita*. Nancy Cunard, an American living in Paris, described the space as "a complicated but pleasing grove, half-Ilana of the tropics, half engine-room in some undefined stretch of time... If one had thought of iron as impersonal, without much

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<sup>16</sup> Jean-Paul Sartre, "Les Mobiles de Calder," in *Alexander Calder: Mobiles, Stables, Constellations*, exh. cat., Galerie Louis Carré, 1946. English translation <http://www.calder.org/system/downloads/texts/1946-Sartre-P0353.pdf>.

<sup>17</sup> Calder, *Autobiography*, 188-89 and 194.

warmth in its nature, with neither heart nor sex, see what Calder does with it.”<sup>18</sup> Gabrielle Buffet also elaborated upon the space’s transformative powers, commenting, “When you enter the room where the mobiles are on view, their long branches moving and rustling, you walk into an unknown world, where the welter of wires, iron stems, and pieces of steel gives you the hallucinating impression of a habitat and vegetation from the moon or Mars,” and ventured that this was a space “where human values, appreciations, and aesthetic judgments lose all meaning.”<sup>19</sup>

Interestingly enough, less than two years later, the artist and his Brazilian patrons sought to position his work’s effect upon public audiences and spaces quite differently. Prior to arranging his exhibitions in Rio and São Paulo, Mindlin had bragged to Calder that he had created an ad-hoc “shop window” of Calder’s work in Rio, and a look at the contemporary architecture of Brazil demonstrates that the simple act of advertising the artist’s work in that context would entail a strong willingness to ally the work with local surrounds, in contrast to using it as a form reprieve or invitation to evade reality, as Calder’s mobiles had been praised for doing in France. The Ministry was renowned for its integration of not only art and architecture but also the continuities between the outdoor public space of the plaza and the building itself, and this emphasis upon strengthening the links between architecture and the natural and public spaces of the country was also prominent in the designs of numerous private residences and public buildings developed in Brazil in the 1930s and 40s.<sup>20</sup> [fig. 124]

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<sup>18</sup> Nancy Cunard, 1947, in Prather, 229.

<sup>19</sup> Gabriel Buffet, “Sandy Calder, Forger of the Moon,” *Cahier’s d’Art*, nos. 20-21 (Paris 1945-46): 324-33, in Giménez, *Calder: Gravity and Grace*, 67-69.

<sup>20</sup> As Stylianne Philippou has explained, several of the most famous characteristics of the Ministry of Education reflected the local environment; the building was the first major modernist edifice to incorporate

Roberta Saraiva has explained that Mindlin's encouragement of collecting and commissioning Calder in Brazil, and the interrelation of art and architecture at the Ministry, were related to "a more or less open conflict between figuration and abstractionism [that] had been running since the 1930s," but which had "swung in favor of abstractionist tendencies" since the end of the war, due in large part to "the local elite's faith in the new art museums and contemporary architecture as symbols of modernity."<sup>21</sup> The notion that architects had inspired a widespread preference for abstract modernism in Brazil around the time of Calder's visit is interesting to consider in light of the artist's stated preference for the installation that Niemeyer and Burle Marx accorded his work in the Ministry. As he wrote in his autobiography, a dubious figure named Dr. Paolo initially insisted that his mobiles be displayed against "pea-green screens with sticks nailed across the top from which to hang the objects," but, after Niemeyer and Burle Marx swept in to rearrange the show, the "pea-green screens" disappeared.

Calder's denigration of "Dr. Paolo" is compelling when considering a particularly informative photograph of the architects' re-installation. This image, which depicts a great extent of the gallery space, demonstrates that Calder's hanging mobiles were shown between the distinctive columns in the interior of the Ministry's second-floor gallery, in close proximity to contemporary Alvar Aalto chairs and other furniture that was reportedly brought in for the purpose of the exhibition. The photograph demonstrates

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built-in brise-soleils; the *pilotis* which elevated it 10 meters off the ground allowed the plaza, which boasted landscape designs by Burle-Marx, to converge with the building; and the interior of the building also reflected the outdoor space, thanks to the manner in which long, thin columns that appeared to pierce the ceilings of certain floors (including the second floor where Calder's work was shown) evoked the forms of the Imperial Palms in Marx's plaza. Philippou, 383.

<sup>21</sup> Roberta Saraiva, *Calder and Brazil: The Tale of a Friendship* (São Paulo: Cosac Naify, 2006), 157.



how, in the context of the open and multichromatic interior of the Ministry's gallery space, the architects' positioning of Calder's mobiles in relation to some of the key design features of the space also had the effect of diminishing their visual impact; the elements tended to be lost and (to borrow a phrase Calder later used to denigrate Dr. Paolo's approach to his mobiles), "inter-confused" with other objects in the room, from the two-dimensional artwork displayed on the walls to the bold geometric Aalto chairs. [fig. 125]

Calder's reactions to Niemeyer and Burle Marx's actions, and his subsequent interaction with architects in Brazil, are the first of several strong suggestions that the trip catalyzed a critical new approach to architecture and, by extension, audiences, on the artist's behalf. Although the São Paulo iteration of his exhibition occurred in an older, less distinctive space, the artist's reportedly frequent socializing with the architect Levi in São Paulo is also likely to have exposed him to numerous examples of and plans for modern public space in that city. These are likely to have included Levi's own efforts to foster syntheses between art and architecture, such as his Teatro Cultura Artística, for which he commissioned a massive exterior mural and even designed seats.<sup>22</sup> [fig. 126-127]

These exposures to Brazilian architects' approach to the interrelation of art and architecture appear to have had two immediate effects upon Calder's own efforts to interrelate his work with public space. When Calder left Brazil in 1948, he presented one of his largest hanging suspended mobiles, *Black Widow* (1948), to Levi, for display in his as-yet-unfinished Instituto de Arquitetos Building (IAB) in São Paulo. Significantly, this mobile, which was produced by Calder in the makeshift studio he used over the course of

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<sup>22</sup> Renato Anelli, *Rino Levi: Arquitetura e cidade* (São Paulo: Romano Guerra Editora, 2001), 164.

his multi-week stay in Rio, seems to reflect the artist's grasp of what modifications would be necessary for making a major impact in Brazil's distinctive architectural context. As photographs of *Black Widow* in the finished IAB building demonstrate, the mobile's constellation of large amoebic black elements - many of which were more than one-foot in diameter, and some of which were pierced by additional, irregular cutouts - were unmistakable in the light-filled space. This was a boon, as the space was larger than any other interior Calder had designed for, and also seems to have been much more visually complicated, with only one light-colored brick wall providing the sort of simple background for the piece that had been so close in proximity to his two prior major commissions for hanging mobiles, *Lobster Trap and Fish Tail* at MoMA and a highly reflective mobile designed in 1941 to cast refracted light on the ceiling of the ballroom of the Hotel Avila in Caracas, Venezuela.<sup>23</sup> [figs. 68-69]

Soon after his return from Brazil, Calder designed another major hanging mobile that would reflect many of the same interests in occupying and commanding attention in vastly-scaled public space that *Black Widow* suggested. Calder created this pivotal work, *International Mobile* (1949), specifically for the grand stairwell of the Philadelphia Museum of Art, the heart of the neoclassical building designed as a "Temple to Art." [fig. 128] *International Mobile* was a constellation of biomorphic, white-painted steel elements in various sizes and shapes, some punctuated by additional biomorphic cutouts. The elements were connected by rods that extended horizontally, vertically, and diagonally, giving the elements the ability to echo the stairwell's dimensions and its slope. The piece recalled the new spaces and designs that Calder had focused upon in

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<sup>23</sup> Saraiva, 90 and Anelli, 33.

Brazil by nature of the fact that it was designed for a soaring and column-flanked location that bore a striking, albeit anachronistic, similarity to the interior gallery of the Ministry of Education, and because, like *Black Widow*, it consisted of monochromatic elements that created a striking contrast with its surrounds.

The context for Calder's development of *International Mobile* suggests that this piece can be considered an announcement of his aspirations to seek out the sort of commissions that he had been promised in Brazil, even in the ambiguous aftermath of the trip. Calder designed *International Mobile* as an entry to the 1949 Third Sculpture International, an event that was advertised widely as the world's largest sculpture competition and exhibition. It was organized by the Fairmount Park Association as a source of commissions for public sculptures in the park and as an inauguration of a plan for \$20,000 in sculpture acquisitions per annum for the park and the Philadelphia Museum of Art.<sup>24</sup>

The *New York Times* critic Aline Louccheim wrote in May 1948 that "the Philadelphia exhibit will be the big post-war opportunity" for sculptors to prove their ability to "evolve a mature modern vocabulary and find a real relationship between [their] work and that of the architect, the landscapist and the decorator." Only such a triumph would solve what she described as the significant and unique quandary that most sculptors face: while their "work is arduous," "materials [are] costly, casting is exorbitant," and "transportation and storage" dear, a sculptor "rarely sells what he produces. Architects [have] shoved him indoors so he will not encumber their facades,"

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<sup>24</sup> The Philadelphia Museum of Art is located in the grounds of Fairmount Park. Penny Balkin Balch, "The Sculpture Internationals: But is it Art?" in *Public Art in Philadelphia* (Philadelphia: Temple University Press, 1992), 99.

and park commissioners were no less welcoming, preferring “blooming azaleas to Atlases.”<sup>25</sup>

Two photographs by a *Life* photographer demonstrate how distinctly Calder’s *International Mobile* seemed to both develop the new and architecturally-inspired prototype of *Black Widow* and affirm the rallying cries of Louccheim.<sup>26</sup> [figs. 129-130] An image of Calder installing the piece depicts the middle-aged artist holding a string and surrounded in all directions by the biomorphic elements of the mobile, suggesting that, like so many of Calder’s other works, *International Mobile* was relatively lightweight even in spite of its extensive dimensions. This characteristic adds intrigue to a group portrait of the 70 sculptors participating in the competition, which was published as a full-page spread in the *Life* article describing the event. The portrait, taken in the PMA’s Grand Stairwell, demonstrates *International Mobile*’s unmistakable presence in and claims on the neoclassical architectural setting. It reveals that the mobile obscured the 13-foot tall Saint Gaudens Statue of Diana at the top of the stairwell, and also gives a palpable sense of the difference between Calder’s entry and the “Austrian immigrant” sculptor Bernard Reder’s *Wounded Woman*, the massive limestone carving of entangled female forms which the portrait reveals at the base of the stairwell; the article explains that Reder’s sculpture required the artist’s life savings and three and a half years to complete.<sup>27</sup>

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<sup>25</sup> Aline Louccheim, “Sculptors’ Chance: Philadelphia Exhibition Offers a Challenging Opportunity,” *New York Times*, May 2, 1948, 88.

<sup>26</sup> “70 Sculptors 70: The World’s Biggest Sculpture Show Assembles Them and Their statues in an Art Museum in Philadelphia” *Life* June 20, 1949, 112-13.

<sup>27</sup> The Diana was designed as a weathervane for the roof of Madison Square Tower, and installed by the PMA in 1932; “70 Sculptors 70,” 113 and Bach, 99.

The striking presence of *International Mobile* in the Grand Stair of the PMA was not fated to last. The selection committee passed on Calder's work, in a move that Louccheim explained as inevitable, given the conservative tastes of the local public, which, she noted with exasperation, "writes outraged letters even about Flanagan's work" and is "obviously[...] not yet ready for pure abstraction."<sup>28</sup> This rejection was not, however, definitive. As the *Life* photographs demonstrated, *International Mobile* proved that Calder, in contrast to traditional sculptors whose work was "arduous," "expensive" and "difficult to transport," was capable of creating a form of sculpture highly visible in a monumental architectural space, even if it was lightweight and required little effort to transport and install. In the early 1950s, Calder would apply and evolve the approach that had allowed him to create *International Mobile* in new and significant contexts for the development of public abstract art. The following section describes how this process affected his ability to gain experience in designing abstraction for public space in a period when such efforts were considered incredibly challenging.

### **"A Terrific Problem:" International Efforts to Develop Abstraction for Public Art and Calder's Long-Distance Collaborations in Venezuela and Germany, 1952-55**

Even if, as Louccheim asserted in her final assessment of the Third Sculpture International, conservative public tastes were bound to impede abstract sculptors from obtaining significant commissions, two prominent architectural projects that were developed in America in the early 1950s did provide some indication that artists would nevertheless soon find themselves in greater demand for public work. From 1950-51,

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<sup>28</sup> Louccheim, "Monuments in Parks: Sculpture Selected from the Philadelphia Show," *New York Times* Aug. 28, 1949, X6.

Marcel Breuer's Harkness Commons Graduate Center at Harvard became the first major effort in the postwar period to integrate modern architecture with modernist art. Calder's longtime friends Miró and Arp were commissioned for installations in the project. The project also entailed a major sculptural commission by a younger American sculptor, Richard Lippold, who designed an abstract, open form 27-foot high stainless steel sculpture, *World Tree*, for the center of the Graduate Center quadrangle. [fig. 131] In the same period, a group of the world's foremost modern architects collaborated to produce models for the newly-formed United Nations' headquarters, which were slated to be built in Lower Manhattan. The final design, which the architect Wallace K. Harrison adapted contentiously from a model developed by Oscar Niemeyer and Le Corbusier, was immediately recognized as being both a major opportunity for and challenge to the aspiration to interrelate painting, sculpture and architecture. [fig. 132]

The stakes were particularly high in the case of the U.N. Headquarters because the project was developed in the immediate aftermath of Le Corbusier's extensive promotion of the concept of the "Synthesis of the Arts;" an argument that the historic modernist aspiration to interrelate painting, sculpture and architecture was vital to cultural restoration in the postwar period because it would foster creativity, and by extension the re-establishment of civil society.<sup>29</sup> A prominent and compelling public debate over the logistics and implications of attempting to realize a "Synthesis of the Arts" occurred in early 1951, at the Museum of Modern Art's "Symposium on How to Combine Architecture, Painting and Sculpture." The museum stated that the event was

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<sup>29</sup> Christopher E.M. Pearson, *Designing UNESCO: Art, Architecture and International Politics at Mid-Century* (Burlington, VT: Ashgate Publishing, 1998, rev. ed., 2010), 82.

prompted by debate over how an art program for the U.N. Headquarters, as yet undefined, could affect public opinions of modern art and space.

Philip Johnson presided and opened the symposium by stating that the two poles of opinion seemed to be summarized by, on the one hand, Jacques Lipchitz's contention that "the art of architecture had to have sculpture in order to be the art of architecture," and, on the other, the opinion of Pietro Belluschi, an esteemed modern architect who had recently been appointed the dean of architecture at the Massachusetts Institute of Technology. Belluschi claimed that "efficiency," as in the development of "clean houses and children's playgrounds" was most pressing, and "surface embellishments will come later, when our esthetic creativeness will have reached maturity."<sup>30</sup>

Goodwin and the panel convened for the symposium quickly dispensed with Belluschi's contention and presented a series of slides demonstrating historic and contemporary examples of the integration of painting, sculpture and architecture. In the course of the dialogue, it was repeatedly demonstrated that some form of the sort of a "new monumentality" that Sigfried Giedeon had proposed in the mid-1940s, along with Sert and Léger, was still a common aspiration. However, as the panelists concurred, this goal had been complicated by the political and financial implications of developing monumental-scale public work in the postwar years. The panel's discussion repeatedly returned to the challenges that the U.N. campus seemed to pose: selecting art that had universal appeal (in part through apparent political neutrality), did not impede functionality, and was large and novel enough to command attention, yet was not prohibitively costly. Johnson called the U.N. buildings group "our greatest symbolic

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<sup>30</sup> Philip Johnson, et. al., "A Symposium on How to Combine Architecture, Painting and Sculpture," *Interiors* 110 no. 10 (May 1951), 100-105.

building of the 20<sup>th</sup> century,” and asserted that Harrison was “up against a terrific problem,” for the fact that, whenever he did finally get the chance to collaborate with artists, he would encounter another challenge in developing a commission that would not only be aesthetically and financially suitable, but also “a symbol of our time.”<sup>31</sup>

The difficulty in finding or creating works that were legible in the context of new, large-scale architecture was mentioned repeatedly; Johnson raised the issue no fewer than four times, and toward the end of the panel, asserted that “the scale problem is everything.” It was Sert, however, who added the most to the panel, by revealing, through a series of comments, a well-developed thesis as to why scale was important, and how it needed to be approached in the contemporary social and architectural climate. The architect stated, “The need for the superfluous is as old as mankind. This must be acknowledged and an end made to puritan attitudes that seek functional justifications for elements that are frankly superfluous.” For this reason, he explained, painting, sculpture and architecture needed to be integrated in “a place that is alive,” such as Grand Central, Times Square, or the U.N., “a meeting place for the people of the world.” Since these modern day sites were so large in scale, Sert insisted, in a comment that closed the symposium, that they required “the creative spirit of sculptor or painter or somebody who can play with movement and several other elements that are modern and can be handled there in a big space.”<sup>32</sup>

Although Calder had not been commissioned for a work for the U.N. Headquarters, it is incredibly tempting to think that Sert was referring to the sculptor when he agitated for “somebody who can play with movement and several other elements

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<sup>31</sup> *Ibid.*, 101.

<sup>32</sup> *Ibid.*, 105.



that are modern” to play a pivotal role in the design of key public sites. Sert had witnessed firsthand Calder’s ability to “play with movement” in the *Mercury Fountain* he had designed for his Spanish Pavilion in 1937, and the pair had become close friends after the architect and his wife immigrated to the United States during the war; they also shared a mutual contact in Calder’s dear friend Léger, who co-authored “Nine Points on Monumentality” with Sert and Giedeon in 1944. The strength of this friendship makes it likely that Sert would have been aware of the artist’s recent efforts to publicize thinking about and working on a large scale as being at the heart of his practice; approximately one month prior to the symposium on the integration of painting, sculpture and architecture, Calder, in his comments at another MoMA symposium on “What Abstract Art Means to Me,” had stated that “the system of the Universe, or part thereof” had always been the “underlying sense of form” in his work and still “seems to me an ideal source of form.” In his remarks, Calder took pains to describe how having the “system of the Universe” as a “model to work from” led him to seek not only to incorporate motion, but “great disparities in motion” into his mobiles, and to try to evoke the “immense distances” between “detached bodies floating in space.”<sup>33</sup>

In the same year that Sert and Calder spoke of their parallel interests in developing compelling forms of movement across “immense” areas, Sert introduced Calder to another architect, Carlos Raul Villanueva, whom he likely assumed would provide Calder with a chance to develop another large-scale mobile for a critical public space. At the time, Villanueva was the subject of international esteem as the architect of a

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<sup>33</sup> Alexander Calder, “What Abstract Art Means to Me,” *Bulletin of the Museum of Modern Art* 18 no. 3 (Spring 1951), 8-9.

unique “University City” in Caracas, Venezuela, which the architect, a former pupil of Le Corbusier, had inspired by his promotion of the “Synthesis of the Arts.”<sup>34</sup>

In 1952, Villanueva asked Calder to produce a mobile for the lobby of the Aula Magna auditorium he was designing at the heart of his University City. [fig. 133] Calder’s response to Villanueva’s request revealed that his use of the “system of the Universe” as the “underlying source of form” in his work could not only inspire him to think on a large scale, but also to take an approach to fabrication that would be critical to his future ability to develop a practice in producing large-scale abstraction. The artist rejected the offer to design a mobile for the lobby, stating that he would rather do something for the concert hall itself. When Villanueva replied that the overhead space was devoted to acoustical panels, Calder offered to use them as the basis for his design, and entered into a long-distance collaboration with the acoustical engineers Bolt Beranek and Newman, who reportedly encouraged his creative license, stating, “the more of your shapes, the merrier and the louder.”<sup>35</sup> [figs. 134-135]

Although Calder’s design of the acoustical panels at Aula Magna is typically and succinctly emphasized as one of the artist’s most beloved and esteemed commissions, surviving records of its development also demonstrate two critical interests that informed and were catalyzed by it. Calder seems to have approached the project as an opportunity to develop an even keener sense of how to command attention in an immense public setting; he wrote to Villanueva at the start of the commission that he wished to play a role

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<sup>34</sup> Pearson, 82.

<sup>35</sup> Calder, *Autobiography*, 240.

in designing the seating and lighting in the auditorium, as well as the acoustical panels.<sup>36</sup> The sheer number of missives that were sent about the project, as well as the cordial attitude that the artist, Villanueva and the sound engineers demonstrated towards one another, also prove that the year-long collaboration, although long-distance and highly experimental, was also a thoroughly positive experience for those involved.<sup>37</sup> A contemporary review of the space also underscores how revolutionary this collaboration had been; Juan Posani wrote that because “the whiteness and sobriety of the space balance and control the overwhelming joy of Calder’s forms,” the auditorium was a “truly estimable” example of the “integration between the work of the architect and that of the painter or sculptor.”<sup>38</sup> Calder would not personally visit the Aula Magna until 1955; by this time, it had already been publicized internationally as an exemplary integration of art and architecture. He would cite it as one of his favorite works even in the late 1960s, when he was best known and most in demand for commissions of multi-ton stables for public outdoor sites.<sup>39</sup>

Although he had not yet seen Aula Magna, and lacked any definite plans for doing so, in the spring of 1953, when Calder was concluding his long-distance collaboration with Villanueva and the acoustical engineers regarding the design of the concert hall’s acoustical panels, he engaged in another form of long-distance collaboration that permitted two more of his largest and most ambitious works to be developed and displayed in the context of a pivotal public event, the first out-of-doors

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<sup>36</sup> Calder to Carlos Raul Villanueva, June 28, 1952, Calder Foundation.

<sup>37</sup> Mildred Glimcher, “Alexander Calder: Toward Monumentalism,” *Alexander Calder: the 50s* (New York: Pace Wildenstein Gallery, 1995), 10.

<sup>38</sup> Juan Pedro Posani, “Aula Magna, Ciudad Universitaria,” *Integral* no. 9 (November, 1957), in *ibid.*

<sup>39</sup> Ted Morgan, “A Visit to Calder Kingdom,” *New York Times Magazine*, July 8, 1973, 33.

public exhibition of modern art to occur in postwar Germany. This exhibition, entitled *Plastik im Freien* occurred in the central park of the city of Hamburg, and coincided with its 1953 Internationale Gartenbau-Austellung (hereafter, “IGA”), which occurred in another section of the city’s central park from April to October. Hamburg was one of the German cities most damaged by Allied bombing, and the IGA was critical in itself as an occasion for major restoration efforts.

Calder had spent time in Germany in the early 1930s, and he first returned in 1952, when, quite possibly as a result of the fact that he had recently won the Venice Biennale, he was an official guest on a tour for Americans. An exhibition of his work traveled throughout the country from 1952 to 1953. At an unknown point in 1953, after his tour of Germany had ended, he designed maquettes for two works that were enlarged and shown in *Plastik im Freien* and the IGA: *Ten Restless Discs* and *Rosenhof*, two of his largest standing mobiles to-date. Almost nothing is known about the commissioning and construction of these works. Calder did not discuss them in his autobiography, reviews or other writings. Based on an undated photograph of *Rosenhof* in-situ at the IGA, scholars have estimated that its height was 25 feet, which far exceeded that of any prior mobile, particularly any mobile-topped stabile that the artist had made. [fig. 136] According to the catalog of *Plastik im Freien*, *Ten Restless Discs* was approximately 16 feet tall.<sup>40</sup> [fig. 137]

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<sup>40</sup> The 1953 model for *Rosenhof* was first shown at the Galerie Rudolf Hoffmann in Germany in 1954, and the exhibition catalog explained that the full-scale work had been shown in the Rose Garden of the 1953 International Garden Festival in Hamburg. A model for *Ten Restless Discs* was also shown at the Galerie Rudolf Hoffman in 1954. The full-scale work was featured in the catalog of *Plastik im Freien*, which states that the piece was lent to the exhibition by the artist. Glimcher, 13 and Carl Georg Heise, *Plastik im Freien* (Prestel Verlag: München, 1953).

<https://www.phillips.com/detail/ALEXANDER-CALDER/NY010412/20> The model for *Rosenhof* recently sold at auction for more than \$3 million.

News coverage of the festival demonstrates that both works were in place as of May 1953; there is an editorial photograph of *Ten Restless Discs* installed on the lawn of the Alsterpark, which is dated April 30, 1953; a review of the *Plastik im Freien* exhibition from the same month also names the piece specifically. [fig. 138] A May 13, 1953 article reviewing the architectural and artistic installations within the IGA grounds described Calder's "playful" work in the Rosenhof, which was separate and apart from the *Plastik im Freien* exhibition grounds; this work is likely to have been *Rosenhof*.<sup>41</sup>

It is significant that these works were on display in April and May of 1953, and that *Ten Restless Discs* is dated 1953 in the *Plastik im Freien* catalog. Calder had not been in Germany or Europe since 1952 and would not return to Europe until June 1953, at which point he began an extended stay in France, without any recorded trips to Germany. That such large pieces, particularly as massive a work as *Rosenhof*, were erected in Hamburg when the artist himself was not in Europe suggests that these pieces' creation may represent an extension of the sort of pragmatic, flexible approach to working outside the realm of a fully appointed studio that Calder had first adopted in Brazil, when he set up a temporary studio and created *Black Widow*, and repeated in the course of his collaboration upon Aula Magna. Since the evidence indicates that *Rosenhof* was enlarged and installed in Calder's absence, it seems likely that local contractors used the model to create the piece. This idea is underscored by several facts: first, Calder did create a maquette of the piece, and the sculpture depicted in the photograph of *Rosenhof* bears a strong resemblance to it. Second, Hamburg was one of the greatest shipping

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<sup>41</sup> "Keine Angst vor grossen Plastiken!" *Hamburger Abendblatt*, April 30, 1953 and "Kunst zwischen Blüten," *Hamburger Abendblatt*, May 13, 1953. The April 30 article discusses *Ten Restless Discs* "floating" above the other sculptures. The May 13 article describes numerous pavilions and aspects of the exhibition, and refers to the playful Calder in the Rosegarten, presumably the stabile *Rosenhof*.

centers in Europe. This, combined with the overall industrial strength of the German Republic in the early 1950s, also promotes the idea that contractors could have completed the piece in Calder's absence. Finally, in 1953, Calder's future son-in-law Jean Davidson published a book entitled *L'Allemagne en Cage*.<sup>42</sup> Davidson argued that the people of this "work-horse of a country" must be understood as individuals, in order to avoid the populace "crashing against its own cage" again, and his book is largely comprised of interviews with various representatives of industry in Germany. It is not difficult to imagine how Calder's relationship with Davidson may have catalyzed or augmented his interest in participating in the IGA, given its purpose to rebuild the war-damaged park at the center of Hamburg, and that Davidson may have provided the introductions necessary to subcontract the fabrication of such as massive work as *Rosenhof*.<sup>43</sup>

The siting of *Ten Restless Discs* suggests another effective dialogue that the event prompted between the artist and other long-distance collaborators. *Ten Restless Discs* was legible and intriguing even in the expansive vistas that the open-air exhibition offered; the success of this effort is suggested by the local reviewer's description of the work as "floating" above the rest of the show.<sup>44</sup> This description is noteworthy because, although the work was not the only sculpture to show well against the open vistas of *Plastik im*

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<sup>42</sup> Jean Davidson, *L'Allemagne en Cage* (Paris: Éditions du Seuil, 1956).

<sup>43</sup> Another possible source of contractors for *Rosenhof* could have been Calder's New York dealer Curt Valentin, who was involved in efforts to promote modern art in Germany in the same years, and who was associated with a colleague of the organizer of "Plastik im Freien." Alfred Hentzen, "Ein Freund der Künstler," *Zeit* August 26, 1954, accessed online, <http://www.zeit.de/1954/34/ein-freund-der-kuenstler>.

<sup>44</sup> It is likely that Calder either created or chose the specific work to accomplish what *Man Eater with Pennants* had not in London in 1951, the last occasion on which his work had been shown in a major outdoor art exhibition. It is also noteworthy that *Ten Restless Discs* is likely to have been easier to transport than its precursor in the new world of open-air exhibitions, *Man Eater with Pennants*: whereas the earlier work had a complex tripod base and hefty iron plates, *Ten Restless Discs* consisted of a series of interconnected rods with steel plate elements that balanced upon a standard metal pole, which could easily have been provided by the organizers of the exhibition.

*Freien*. The show also included other abstract steel sculptures that were well-suited to outdoors exhibition, including works by Henry Moore and Julio Gonzalez. However, the fact that *Rosenhof* was attached to a 15-foot tall pole was critical to highlighting its kinetic features (unparalleled in the context of the exhibition) and, consequently, its ability to command attention so effectively.

The prominence of *Ten Restless Discs* in the context of *Plastik im Freien* may also be considered an evolution in the artist and his supporters' approach to the positioning and display of his work in new public forums for the display of abstract art, because it is most likely that *Ten Restless Discs* was assembled in the United States and shipped to Germany with instructions for its suspension from a simple pole. This represents an improvement upon an exhibition of another major Calder mobile in an outdoor exhibition, the 1951 Sculpture in the Open Air exhibition at Battersea Park, in London.<sup>45</sup> *Man Eater with Pennants* was shipped from New York to London for this exhibition. However, as a postcard of it in-situ demonstrates, it was far less commanding in that pastoral space than *Ten Restless Discs* would prove to be.<sup>46</sup> [figs. 83-84]

*Rosenhof* also modified the form of earlier works in several critical ways that indicate the artist's attention to the physical and social aspects of the IGA and the postwar rebuilding of Hamburg more generally. The piece represented a new iteration of a type of stabile that Calder had first showed in, and created shortly after, his trip to Brazil in 1948. These had pyramidal bases made of intersecting sheets of metal, with

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<sup>45</sup> Robert Burstow discusses London's open air sculpture exhibitions in "Modern Sculpture in the Public Park: A Socialist Experiment in Open Air 'Cultured Leisure,'" in *Sculpture and the Garden*, ed. Patrick Eyres and Fiona Russell (London: Ashgate Publishing, 2006), 133-144.

<sup>46</sup> Calder to Rose [surname omitted], [date omitted from copy provided by MoMA Painting and Sculpture Study Collection. Author awaits new copy], Painting and Sculpture Study Collection, MoMA.

portal-like cut-outs. In one provocative photograph, the beautifully made-up eye of a female attendee at Calder's São Paulo exhibition stares through the cutout of a small version of these stabiles. In 1952, Calder created an 11-foot version of this form, *Corcovado*. [figs. 139-140] Significantly, *Rosenhof*'s loftily-positioned, simple white circles were far less menacing than the black mobile atop *Corcovado*. The portals in *Rosenhof* also appear to have been positioned in new and particularly inviting manner that would have been likely to compel spectators, and/or diners at the eponymous café where the work seems to have been sited, to peer through them at the surrounding area. These comparatively accommodating features may have reflected Calder's sensitivity to the physical devastation that Hamburg had suffered during the war; the IGA was designed as a rebuilding effort, and Calder himself had toured the city's ruins during his 1952 trip to Germany.<sup>47</sup>

Soon after the IGA, Calder returned to Germany to complete another major commission, for the courtyard of the American Consulate in Frankfurt.<sup>48</sup> The consulate was designed by Gordon Bunshaft, who had commissioned Calder for *Twenty Leaves and an Apple* (1946), a hanging mobile, for the lobby of his Terrace Plaza Hotel in Cincinnati.<sup>49</sup> This history, as well as the architect's recent efforts to collaborate with the sculptor Isamu Noguchi to design the courtyard of his Lever House building in Manhattan, are likely to have catalyzed the commission; the American Consulate in Frankfurt, like the other three German Consulates Bunshaft designed in the 1950s, was

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<sup>47</sup> Eka V. Merveldt, "Alexander Calder inoffiziell," *Die Zeit*, October 9, 1952  
<http://www.zeit.de/1952/41/alexander-calder-inoffiziell>

<sup>48</sup> Calder, *Autobiography*, 247.

<sup>49</sup> Wick, 79-80.



closely related to Lever House, with facades of glass, exposed steel and marble veneers, and a generously sized interior courtyard.<sup>50</sup> [fig. 141] A close look at how the stabile was vetted and discussed amongst architects and bureaucrats, and the manner in which it related to the space, which Calder did not describe in his account of the commission, demonstrate that the project can be understood as another important event in his development as a producer of art for critical spaces of postwar reconstruction.

The U.S. State Department assumed a new and dogmatic orientation to modern architecture in the construction of its Embassies and Consulates in the early 1950s, and these efforts received significant publicity in the America. *Architectural Form* ran a feature entitled “U.S. Architecture Abroad,” wherein State Department architecture was explained as diametrically opposed to that of the U.S.S.R., whose consulates and embassies were also illustrated, with large, bold faced text which read: “Architecture makes a good ambassador: Note the pretentious classicism of official Soviet architecture abroad, then compare it with the clean and friendly embassies, consulates, information centers and staff apartments now being built by the US in many parts of the free world.”<sup>51</sup> MoMA also ran an exhibition of U.S. State Department architecture in late 1953.<sup>52</sup>

The SOM designed American consulates in Germany were comprised of three low-slung, one-story wings, at right angles to one another, which were connected to a “vertical slab” of “secure” offices. The designs were predicated, in part, upon the inclusion of “Amerika Houses;” these were, according to *Architectural Forum*, tactically significant United States information centers that were “immensely popular, [and]

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<sup>50</sup> Dore Ashton, *Noguchi: East and West* (New York: Alfred Knopf, 1992), 163.

<sup>51</sup> “U.S. Architecture Abroad,” *Architectural Forum*, March 1953, 102-103.

<sup>52</sup> *Architecture for the State Department* (October 6 – November 22, 1953), MoMA.

contain[ed] well stocked libraries, references files and auditoriums.” The visibility of these sites was emphasized as a critical aspect of American diplomatic efforts: many were intended to have “glass wings.” While these “glass wings” would face the street, and even, as an illustration in *Architectural Forum* demonstrated, would perhaps one day entice passers-by with such representations of American culture as a massive Calder mobile and other installations of modern art, the reading rooms were also to be “carefully screened... from the street to keep Soviet informers from noting down which Germans came to read ‘dangerous, war-mongering books.’”<sup>53</sup> [fig. 142]

Given the tactical import of both modern architecture and art in the design and promotion of these buildings, it is not surprising that Calder’s design for the Consulate in Frankfurt does not appear to have been arranged as casually as his later recollection would indicate. In his autobiography, Calder described the commission of a stabile for the consulate as related to his friendship with an American diplomat in Germany. He described the work that it produced, a large stabile entitled *Hextopus*, as a piece commissioned by Bunshaft, and produced through collaboration with a bridge building outfit which cut the steel plates to his specifications, as well as a motley crew of characters that assisted in providing him the welding equipment necessary to adjoin the constituent parts in the courtyard of the Consulate.<sup>54</sup> But the artist appears to have undergone a more extensive and revealing design process. He provided at least one model of a stabile the approval of the Foreign Building Office’s Architectural Advisory Committee, and, in October 1955, this model or another (the whereabouts and appearance of which are not presently known) was turned down by the committee as being too

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<sup>53</sup> “US Architecture Abroad,” 112.

<sup>54</sup> Calder, *Autobiography*, 247 and Osborn, 34.

“formidable.” The SOM architect David Hughes, an American who ran the firm’s offices in Bonn, was then given directions to “advise” Calder to “arrive at a better solution” for the site.<sup>55</sup>

Only weeks after this determination was made, Calder brought another model to a bridge builders in Frankfurt, to which he had been referred by a “local architect” (quite possibly David Hughes or one of the German architects he oversaw), and “in two more days my stabile was all cut and ground and ready to be welded.”<sup>56</sup> Although the work has long since been removed from its original site, photographs of it in its original context suggest that, perhaps as the result of substantive suggestion from the Architectural Advisory Committee and David Hughes, *Hextopus* was more whimsical or playful than “formidable.” Furthermore, it capitalized on the sense of unencumbered movement and modernity that SOM and the State Department emphasized as socially significant aspects of the Consulate’s architecture. [figs. 143-144]

The upper portion of *Hextopus* is defined by biomorphic anvil-type shapes that Calder had incorporated into his stabiles since the 1930s, including one of his most successful and largest prior stabiles, *Black Beast* (1940). [fig. 145] However, in contrast to this earlier work, *Hextopus*’ two longest elements slope gently toward the ground, and recall the legs of a dog or other four-legged creature in an attitude of prostration. For this reason, *Hextopus* is less evocative of the sense of pent-up energy, and sometimes menace, that characterized *Black Beast* and other earlier stabiles such as *Whale* and *Spiny*. [figs. 145-146 and 9, 104 and 99]

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<sup>55</sup> Minutes of the Foreign Buildings Office Architectural Advisory Committee, October 19, 1955, Jane C. Loeffler Archives, Avery Library, Columbia University.

<sup>56</sup> Calder, *Autobiography*, 247.

Because *Hextopus*' main horizontal and vertical plates are large, from many angles they obscure the forms and dispositions of the three smaller "supporting" arches that intersect with the large, horizontal plate. For this reason, piece took on distinctly different forms from the various viewpoints from which it was possible to view it, in its original site in the large, slightly sunken courtyard of the glass-enclosed Consulate. The new emphasis upon building a large stable with a base that would seem to morph so dramatically when circumnavigated suggests Calder's knowledge of, and responsiveness to the fact that the Consulate was designed so that three of the four glass-paneled wings that flanked the interior courtyard would be public spaces.

A series of commissions that Calder began within less than a year after completing *Hextopus* reinforce the notion that the novel aspects of its form revealed a new interest on his behalf in the relationship between his work and the architectural and social contexts for which it was intended. The following section discusses the evolution and implications of these commissions.

### **"Big Business" and Valuable Frustration: Calder's Postwar Commissions in Relation to Contemporary Modernist Attempts to Define and Achieve**

#### **"Monumentality"**

In the same period that the planners of the U.N. complex in New York debated the "terrific problem" of designing an art program for their monumental building, the designers of the Paris headquarters of the United Nations' Educational, Scientific and Cultural Organization (UNESCO) vowed to make it a critical example of the synthesis of painting, sculpture and architecture. The complex was designed through another major

collaboration between international architects, led by the Italian architect Pietro Luigi Zervi, the French architect Bernard Zehruss and Marcel Breuer, a Hungarian-born architect and former Bauhaus instructor who immigrated to America in 1937, when Walter Gropius, then the dean of the Harvard School of Architecture, gave him, along with Sigfried Giedeon, a professorship at the school. [fig. 147] In 1956, Calder, Picasso, Miró, Arp, Noguchi and Moore had been given commissions for the UNESCO complex. Although this announcement prompted much excitement, their commissions, when complete, were prominently dismissed as more “adjunctive” than “integrated.”<sup>57</sup> [fig. 148]

Calder’s experience at UNESCO underscored the significant but contradicting implications of making commissions in such a framework. The work he produced for the site was a 10-meter standing mobile entitled *La Spirale*. [fig. 115] The piece, his tallest mobile to-date, was based on a smaller version that he had designed outside the context of the UNESCO commission. [fig. 149] *La Spirale* necessitated yet another long-distance and collaborative fabrication, with the simple and relatively uninspiring base being made in France, while Calder and Carmen Segre, the owner of an industrial foundry in Waterford, CT, toiled to balance a cascade of the five paddle-like arms attached to a pole and the base.<sup>58</sup> When complete, the mobile’s arms extended away from the central supporting pole in an unfixed tapering constellation of biomorphic triangular forms.

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<sup>57</sup> Pearson summarizes the critical response to the commissions as follows: Amongst the cognoscenti, “Moore and Noguchi came in for the most praise, while Miró’s walls received official recognition by being awarded the biennial Guggenheim Prize for 1958. The contribution of Picasso was frequently panned, while those of Arp and Calder were generally overlooked.” “Many apparently found the works baffling and infantile; ‘Why so much art that looks like playthings?’ was the query of one irritated Parisian critic. Even supporters of modern art tended to look for an easily legible public meaning at UNESCO.” Pearson, 318.

<sup>58</sup> Pearson, 277, Calder, *Autobiography*, 258-259.

These forms were capable of reflecting the stature and shape of the Eiffel Tower, and also reorganized in random patterns.

The size of *La Spirale*, and the fact that its mobile element was legible against the silhouette of the Eiffel Tower across the city, seems to have been a double-edged sword for Calder. Although Calder seems primarily to have accepted the commission to enlarge this piece as a favor to Marcel Breuer, one of the three lead architects of UNESCO and a personal friend of Calder's, when developing the work he specifically requested that the mobile be sited in an open space in the sightlines of the Eiffel Tower. However, after the commission was complete, he rejected reports and conjectures that *La Spirale* was a reworking of the famous monument. Instead, when pressed for commentary as to what it might represent, he told reporters, "Well, it goes up, it's something like a flame. But there is no history attached. Sorry, boys."<sup>59</sup> Even so, in contrast to these public protestations, Calder wrote in a private correspondence in late 1958 that the piece was well placed in the large arena (which his correspondent had criticized) first and foremost because the site permitted *La Spirale*'s mobile elements to move freely, and also because its position permitted it to be viewed against the Eiffel Tower, and, furthermore, against the "big glass buildings" of UNESCO; apparently for one or both of these reasons, Calder explained that "it acts as a sentinel."<sup>60</sup>

Calder's conflicting descriptions of *La Spirale* demonstrate that the work's size had implications upon its symbolism that had been difficult to anticipate and therefore

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<sup>59</sup> Pearson, 279. Pearson argues "The impression remains, however, that Calder was again intending to create a formal and ideological contrast to UNESCO's architecture, evoking themes of cosmic revolution in order to reference natural laws that lay far deeper than contemporary social, political or technological issues." Pearson, 278-9.

<sup>60</sup> Calder to John M. Kyle, November 15, 1958, Calder Foundation.

admit; and, as a result of its size, *La Spirale*'s movement was best perceived from a distance, and the distance permitted it to be seen against a variety of vistas, which, in turn, gave it multiple possible roles and implications for audiences.<sup>61</sup> The same ambiguity with regard to the symbolism and function of such large-scale work pervaded the development and aftermath of the commissions that Calder received in the same period, for the motorized mobile, *Whirling Ear*, in the elliptical pool of the U.S. Pavilion at the 1958 World's Fair and for .125, the suspended mobile he produced for the International Arrivals Terminal at Idlewild Airport. [figs. 113-115] Because Calder submitted multiple maquettes as proposals for these projects, it can be inferred that he did not have rigid opinions about what type of work should be developed for either space. However, as in the case of *La Spirale*, each commission undoubtedly advanced his understanding of the stakes of producing public work at such a scale.

Calder glossed the development of the *Whirling Ear* in his autobiography, and provided a photograph of it that decontextualized it significantly, by neglecting to give a sense of the immense and striking architectural space for which it was designed.<sup>62</sup> [figs. 150-151] The U.S. Pavilion at the Brussels World Fair was a highlight in the career of its architect, Edward Durrell Stone, and in the context of the event itself. The Pavilion was noted for its openness and its striking and technologically impressive lattice curtain wall. American reportage of the fair also emphasized the distinctions between the U.S.

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<sup>61</sup> In this respect, *La Spirale* proved to be a striking contrast to the Moore reclining figure for UNESCO. Lewis Mumford complained that the Henry Moore "is all effectively cancelled out piece of abstract 'sculpture' designated as an entrance canopy," and "even more eloquent works than those on display could not register here," due to what he perceived as a persistent lack of clear relation between the works and the spaces in which they were sited. "UNESCO House: The Hidden Treasure," (1960) in *The Highway and the City* (New York: Harcourt Brace & World, 1963), 88.

<sup>62</sup> Calder, 1966, 258, 260.

Pavilion's openness and the manner in which the U.S.S.R. Pavilion occupied the majority of the land that had been allotted for it.<sup>63</sup>

Although Calder's recollections of his commission do not suggest any lasting impressions of Stone's Pavilion, photographs demonstrate that the *Whirling Ear* occupied an important area of the site. Calder's *Whirling Ear* was surrounded by, and made to seem as though it interacted with, the numerous jets installed in the large elliptical pool that Stone designed to lead visitors to the Pavilion; as such, with its asymmetry and connotations of freedom and unpredictability, it was the most visible part of a larger art program, including extensive murals inside the U.S. Pavilion by the caricaturist Saul Steinberg, that also patently contrasted the social realist art that adorned the Soviet Pavilion. Photographs of the U.S. Pavilion also demonstrate how the elliptical pool, filled with jets turning on and off at unpredictable intervals, in relation to the asymmetrical and constantly moving *Whirling Ear*, not only contrasted the Soviet Pavilion, but also interrupted views of its façade. [figs. 152-153]

Calder was not able to ensure that .125, his only major commission for a suspended mobile in the 1950s, was as mechanically successful as *Whirling Ear*. This work, designed for the International Arrivals Terminal at New York's Idlewild Airport, was Calder's largest mobile to date, with a span of approximately 45 feet. [figs. 114 and 154] The International Arrivals Terminal, designed by SOM, was a paradigmatic modern

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<sup>63</sup> *Architectural Forum* explained, "The site plan is the most generous at Brussels: rather than cover every square inch of the plot (as the Russians did), Stone 'sacrificed' nearly half of his allotted acreage to create a magnificent plaza setting for his Pavilion – and thus provided a fine and rare open space in a fairground which is as packed as Coney Island. And finally, the scale of the Pavilion's interior is nothing short of stunning; yet the effect seems to have been achieved in an almost effortless way." "A Final Look at Brussels," *Architectural Forum* 109 (October 1958): 104. Hicks Stone, *Edward Durrell Stone: A Son's Tale of a Legendary Architect* (New York: Rizzoli, 2011), 174.



airport building and the crown jewel of Idlewild; it was also a site of pilgrimage for the general public in the first era of jet travel.<sup>64</sup>

Correspondence on the final phases and aftermath of the commission indicate that Calder tested .125's movement and stability intensively, even at one point hoisting the approximately 600 lb. work aloft with a crane in the "open air" outdoors.<sup>65</sup> Interestingly enough, following these tests, he requested at least twice that "artificial blowers" be installed adjacent to the work, so that its elements would be certain to move. These requests fell on deaf ears, but Calder repeated the idea to the consultant for the project once more after .125 was installed.<sup>66</sup>

Calder's dissatisfaction with .125, which was the last to be installed of the three commissions that made him a "big businessman" between 1957 and 1958, suggests that even if these commissions were a significant and lucrative side "business," they did not signal unequivocal success. In many ways, the unprecedented scale of each of these commissions interfered with the artist's stated interest in attempting to "model" the interactions of disparate bodies in the universe, because the works were inevitably affected by aspects of their sites that the artist could not control, ranging from the politics and history of their sites, to the simple fact that the interior of Idlewild's International Arrivals Terminal was not breezy enough to move the pendulous elements of his largest work.<sup>67</sup>

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<sup>64</sup> Marter, *Alexander Calder*, 247.

<sup>65</sup> Calder to "Mr. Bourland," May 1, 1957, Calder Foundation.

<sup>66</sup> Calder to unspecified recipients ("Dear Gentlemen), October 15, 1957, and Calder to Kyle, November 15, 1958, Calder Foundation.

<sup>67</sup> Calder, "What Abstract Art Means to Me," transcript of artist's statement at a symposium at MoMA on February 5, 1951, reprinted in *Bulletin of the Museum of Modern Art* 18 no. 3 (Spring 1951), 8-9.

Mixed as their results may have been, the multiple forms of collaboration that these commissions promoted between the artist, commissioning architects, and industrial workers left Calder in a unique position amongst modernist sculptors with strong interests in developing large-scale work for public space.

The postwar experience of Naum Gabo is a case in point. Gabo moved to America in 1946, after having spent the war in rural England with Moore, Hepworth and Nicholson. He enthusiastically pursued opportunities to collaborate with the architect of the UN, Wallace K. Harrison, and with Nelson Rockefeller. Only one of these commissions materialized, despite the Gabo's investment of significant time and effort in several ambitious and complex proposals. These failures exacerbated his sense of isolation in America, where he was far removed from fellow pioneering Constructivist artists. He realized one major public work in the 1950s, the 26-meter *Construction* (1954) commissioned by Marcel Breuer for the street fronting his Bijenkorf department store building, but the expensive work met with mixed reviews, and he would not attain any comparable achievements for the remainder of his life.<sup>68</sup> [fig. 154]

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Participants in the symposium included Robert Motherwell, Flitz Glarner, Stuart Davis, George L.K. Morris and Willem de Kooning. Painting and Sculpture Curator Andrew Carnduff Ritchie moderated.

<sup>68</sup> Christine Lodder writes that at the time of the "What Abstract Art Symposium," Gabo felt a "growing sense of isolation in America." "Unlike Calder, who lived nearby, Gabo could not rely on long-established contacts and a solid reputation with the American modern-art establishment." In Lodder, *Constructing Modernity: The Art and Career of Naum Gabo* (New Haven: Yale University Press, 2000), 339. Gabo designed the soaring construction of steel ribs coated with bronze, and interlaced with bronze wire, to reflect the cranes of Rotterdam's harbor, and it held the title of tallest nonfigurative public sculpture to be commissioned in postwar Europe for more than a decade. Its unveiling was marked by a sense of euphoria, and Mumford, who was present, remarked favorably, "Though it has not a single moving part, if one excepts the vibrating lacework of springs that holds the vertical elements in tension as the metal expands and contracts, the whole structure seems in constant motion as one walks towards it and around it, and it undergoes further changes as the light in the sky dims or brightens." The work was also, however, derided as an ambiguous form and as a sign that the artist had abandoned his own ideology, in spite of his contention that the careful interlacing throughout the work functioned to bring the tenets of constructivism to the masses. *Ibid.*, 365. In the mid-1950s Gabo also developed a complex proposal for a fountain for the lobby of the Esso Building in Rockefeller Center that Nelson Rockefeller supported, but could not persuade his board to approve. *Ibid.*, 322.

Isamu Noguchi also retained an interest in developing outsized forms in public space, but as of 1960, his ambitions to take a modern sculptural approach to the design of large areas of public space had not advanced significantly from the complex and ill-fated proposals he put forth in the 1930s, as discussed in Chapter Two.<sup>69</sup> The strain of the repeated rejections of his public proposals is reflected in the fact that, during this period, he began to focus on what would become a lifelong interest in melding modernist sculpture and traditional Japanese landscape design.<sup>70</sup> [fig. 155-156]

Like Gabo and Noguchi, David Smith and Henry Moore had also been interested in developing abstract public work in the 1930s and 1940s. [figs. 117-118] However, during the 1950s they developed networks that supported a new contention that abstract public work need not be truly monumental in scale.<sup>71</sup> During this period Smith would make such provocative assertions as “sculpture is an adventure viewed;” a comment that reflected the emphasis that he placed upon his credentials as a welder and the fact that he

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<sup>69</sup> Noguchi proposed a radical concrete playground for New York City, *Play Mountain*, in 1933. These proposals prompted administrators to remove him from the payroll until he was “willing to undertake work of a more purely sculptural character.” He reprised many of *Play Mountain*’s ideas in a 1952 design for a series of playgrounds by the United Nations; Robert Moses rejected this proposal. Dore Ashton, *Noguchi: East and West* (New York: Alfred Knopf, 1992), 52 and 300 and Ana Maria Torres, *Isamu Noguchi: A Study of the Space* (New York: Monacelli Press, 2000), 25-26.

<sup>70</sup> Although Noguchi submitted designs for numerous playgrounds and other forms of public earthworks to the WPA and in the context of American architectural contests from the 1930s to the 1950s, the interior decoration, particularly adaptations of ceilings and walls, was the most significant area of his design for public space during the period. Torres, 272-78. For UNESCO, he created a “Japanese garden” with some sculptural elements, in rough, unfinished stone. See Dana Miller, “Breaking Ground: The Environmental Works of Isamu Noguchi,” in Valerie Fletcher, *Isamu Noguchi: Master Sculptor*. (London: Scala Publishers, 2004): 162-185.

<sup>71</sup> In 1957 David Smith wrote an essay entitled “The Artist and the Architect.” He claimed, “There is no ideal union of art and architecture when art is needed simply to fill a hole or enliven a dead wall. Good architecture does not need art if the architect himself doesn’t see it in his conception... Good sculpture... is based upon a different aesthetic structure. Until the architect... accepts it on its own terms, seeks it as one contemporary autonomy meeting another in a relationship of aesthetic strength and excellence, art and architecture will remain the strangers they have been for at least the last hundred years.” In *The Sculptural Imagination*, 162.

fabricated all his work personally.<sup>72</sup> He also developed his welded metal sculpture (which he produced without the help of industrial technicians, having been trained to weld as a young man) to reflect light in compelling ways, and to showcase the patterns that fabrication etched onto the surface. [fig. 157] Smith's evolution was a source of fascination to the critic Clement Greenberg, who argued that his work should be displayed publicly and prominently, so that that it could "widely... present" its "heroic[...] claims in person."<sup>73</sup> [fig. 117]

The British art historian Herbert Read also argued that the best abstract sculpture would need to remain relatively close to human scale, as a means of fostering direct communion between viewers and work. In his 1956 book *The Art of Sculpture*, Read asserted that sculpture that strove to "define space but do[es] not occupy it" might not be sculpture at all, but instead some sort of decorative "ironwork," "an art that in the past was not despised." Moore was very much the historian's muse, and Read argued that the "tactility" of his work and its rhythmic interrelation of surface and mass revealed "universals of harmony and grace" that "affirm the possible existence of a harmonious realm of existence."<sup>74</sup> [fig. 118] These comments bolstered Moore's own contention that a sculptor should conceive of work as a solid "mass" that "displaces" the space around it, and his ability to become the preeminent producer of works for public space in Britain,

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<sup>72</sup> David Smith, "The New Sculpture (1952)," paper delivered by Smith on the occasion of a February 12, 1952 MoMA symposium on abstract expressionist sculpture, in Potts, *Modern Sculpture Reader*, 196.

<sup>73</sup> Greenberg, "Roundness Isn't All: Review of *The Art of Sculpture* by Herbert Read," November 25, 1956, in David Gettsy, "Tactility or Opticality, Henry Moore or David Smith: Herbert Read and Clement Greenberg on *The Art of Sculpture*, 1956," *Sculpture Journal* 17 no. 2 (2008), 86.

<sup>74</sup> Herbert Read, excerpt from *The Art of Sculpture* (1956), in Potts, *Modern Sculpture Reader*, 207.

even while refusing to collaborate with architects or design otherwise site-specific work.<sup>75</sup>

In addition to contrasting the relative obstinacy of Gabo, Noguchi, Smith and Moore, Calder's little understood commissions in Frankfurt, Brussels and Paris also provide compelling insight into his uniqueness amongst sculptors as an early and repeated participant in distinctly political projects. While America's utilization of abstract art during the "Cultural Cold War" has been the subject of numerous studies of American art at midcentury, these have focused upon the interrelations between the United States government and abstract expressionist painters such as Jackson Pollock. The role of abstract sculptors has only been examined in relation to the 1953 Competition for the Monument to the Unknown Political Prisoner, the first international competition for a monument that encouraged abstract entries. This competition, which was run under the auspices of the Institute of Contemporary Arts, London, is widely believed to have been backed by the CIA and to have represented its efforts to contrast American culture to that of Communist countries, where social realist art was critical to propaganda.<sup>76</sup>

Although the winner of the contest, the English sculptor Reg Butler, was keenly interested in developing his design on an architectural scale, and developed photo montages of an enlarged version of the work atop a hill in West Berlin, the commission

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<sup>75</sup> Moore, "The Sculptor Speaks (1937)," in Getsy, 77.

<sup>76</sup> Marter, "The Ascendancy of Abstraction for Monumental Art: The Monument to the Unknown Political Prisoner Competition," 30 and 36. On the U.S. government's promotion of modern art during the Cold War, see Loeffler, *The Architecture of Diplomacy* (New York: Princeton Architectural Press, 1998) and Serge Guilbaut, *How New York Stole the Idea of Modern Art* (Chicago: University of Chicago Press, 1985), Taylor Littleton and Maltby Sykes, *Advancing American Art: Painting, Politics and Confrontation at Mid-Century* (University of Alabama Press, 2005).

was never realized.<sup>77</sup> While the abandonment of this project is believed to reflect new tactics on the behalf of the CIA, new aspects of Cold War politics and culture would soon demand evolved approaches to the development of abstraction at a monumental scale. In the same year that Calder completed his commissions for Idlewild, the Brussels Pavilion and UNESCO, the architectural critic Ada Louise Huxtable presciently warned that the increasing popularity of steel framed, curtain glass buildings was revolutionizing the aesthetics of western cities, and that it was imperative to develop artistic approaches to such immense areas of urban space.<sup>78</sup> Chapter Four describes how and to what ends Calder's prior decade of collaborations affected his approach to developing work for such new urban spaces in the 1960s and 1970s.

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<sup>77</sup> Butler's design was a stark construction that seemed to combine a watchtower and gallows towering over three comparatively diminutive earthbound bronze female figures. Robert Burstow, "The Limits of Modernist Art as a 'Weapon of the Cold War: Reassessing the Unknown Patron of the Monument to the Unknown Political Prisoner,'" *Oxford Art Journal* 20 no. 1 (1997), 72.

<sup>78</sup> Ada Louise Huxtable, "Park Avenue School of Architecture," *New York Times*, December 15, 1957, 232.

## CHAPTER FOUR

### **“New Concepts in Environmental Sculpture:” Calder’s Late Commissions, Postmodernist Art and Urbanism, 1962-76**

As Calder was completing his late 1950s commissions for UNESCO, Idlewild and the Brussels World’s Fair, Eliot Noyes, who had long since left MoMA and developed an independent architectural practice, provided him with a commission that would prompt the most critical series of collaborative experiments he would undertake in his entire career. Noyes requested that the artist reproduce an approximately 9- by 11-foot stabile, *Black Beast* (1940), in a thick-gauge metal.<sup>1</sup> [fig. 9] At the time of Noyes’ request, this work, despite having been created at an early date in Calder’s career, remained as one of the artist’s largest and most complex stabiles. The funds that Calder received from this commission emboldened him to do more similarly sized stabiles of one and one-quarter inch steel, and working with this thicker material introduced a dynamic new aesthetic in his stabiles that made them supplant large-scale mobiles as the most exciting area of his practice. After a series of commercial successes with approximately 10-foot tall stabiles made of thick steel, Calder decided to cease restricting himself to producing works that could fit into Maeght’s gallery, and he established a relationship with an industrial

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<sup>1</sup> Osborn, 33.

foundry, Etablissements Biémont, in Tours, France.<sup>2</sup> Biémont, he reported, was willing to enlarge his work to any dimension that he had the “nerve” to request.<sup>3</sup>

If Calder initially needed courage to request large-scale works from Biémont, by the late 1960s he received several public commissions that permitted him to create work at two to three times the size of the first stables he produced there on speculation. Joan Marter has described how the ascendance of this form of “colossal” or “immense” work, often weighing in excess of 30 tons and extending 40 to 50 feet in length or height, was the single most important catalyst in changing the face of modern public art.<sup>4</sup> It introduced industrial materials as an integral form of “new monumentality” in modern urban space, established a basis for commissions of other immensely scaled work, and demonstrated how such large-scale deployment of these materials could activate urban space, both physically and psychically.

This chapter reframes the artist’s late-career monumental public art as a continuation of the collaborative experimentation that I have described as integral to his earlier development of abstraction for public space. I demonstrate, in case studies of three critical groups of works, how Calder and his commissioners fostered a strong sense of reciprocity between his large-scale public commissions and the specific physical and social contexts they occupied, in spite of the fact that the commissions were for dispersed

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<sup>2</sup> Marguerite Maeght, the wife of Calder’s dealer Aimé Maeght, commented that he must have “really had to scratch his brains” to produce a 1959 show of more than ten such works that Maeght himself bought in its entirety on the eve of his exhibition. Osborn, 33. Mildred Glimcher argues that from 1950 to 1959, Calder’s work underwent a major evolution, thanks to the advent of collaboration with blacksmiths to produce larger-scale stables in thick metal: “While the difference in scale is the most obvious issue, the stables have great presence and energy.” Glimcher, 19.

<sup>3</sup> Calder, *Autobiography*, 264.

<sup>4</sup> Marter, “Alexander Calder’s Stables: Monumental Public Sculpture in America,” and *idem.*, *Alexander Calder*, 243.



and varied social and physical contexts and occurred in remarkably quick succession. I argue that the reciprocal nature of these commissions critically related to and advanced contemporary experiments in the development of urban space, collective activity, and mass culture, and positioned Calder in a compelling dialogue with postmodernist artists who also developed emphatically reciprocal brands of art for the public realm in the same period. The chapter concludes with an argument that these 1960s and 1970s experimental collaborations in the development of public art for postmodern spaces and audiences were fittingly succeeded by final commissions that seemed to suggest efforts by Calder to exceed and surpass his past work for public space, rather than conclude and summarize it.

### **Invited Interventions: 1960s Efforts to Develop “New Concepts in Environmental Sculpture” and the Development of Calder’s First Colossal Stables**

In 1962, Giovanni Carnadente, an eminent Italian historian, playwright and curator, arranged an international exhibition of sculpture entitled *Scultura nella città*, in the mountainous medieval city of Spoleto, in the Northern Italian province of Perugia. Carnadente conceived of this exhibition as a groundbreaking opportunity for modern sculptors to explore the interrelation between sculptural form and urban space, and made an unprecedented arrangement for an exhibition by enlisting a major industrial sponsor, the metal conglomerate Italsider, to not only commission artists for works made of industrial grade steel to be displayed throughout the city, but also to provide the commissioned artists with factory space, materials and a labor force that would permit

them to produce these works in proximity to Spoleto.<sup>5</sup> Carnadente commissioned ten prominent abstract artists, including Calder, to create works with Italsider for specific sites in the Spoleto. These would be the first modern works ever commissioned for the city.

The reactions of several artists associated with the event underscore the significance of this unprecedented opportunity for abstract sculptors. After Carnadente first mentioned the exhibition to Beverly Pepper, she immediately set about learning how to weld. In the month David Smith was given use of an Italsider factory and the abandoned materials it contained, he and Italsider workers produced 26 *Voltri* sculptures, named after the town where the factory was located. [figs. 158] The *Voltri* group marked a watershed in his career. Rosalind Krauss, in her monograph of Smith, argued that many of these powerful works, which presented surprisingly different forms as viewers moved around them, “[confront] us with our efforts to rationalize the objects we see before us... defeating our expectations and thereby upsetting our systems for the acquisition of knowledge.”<sup>6</sup> Carnadente displayed the *Voltri* to great acclaim in and around the ruins of the town’s ancient Roman amphitheater.<sup>7</sup> [fig. 159] The photographer Ugo Mulas also produced a remarkable series of photographs that demonstrate the impact of the works in and around the civic space.<sup>8</sup> [fig. 160]

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<sup>5</sup> Marin R. Sullivan, “Material Diversion: Sculpture, Photography and International Interventions in Italy, 1962-1972,” Ph.D. Dissertation (Ann Arbor: University of Michigan, 2012), 26; Giovanni Carnadente, *Teodelapio: Alexander Calder* (Milan: Charta, 1996).

<sup>6</sup> Krauss, *Terminal Iron Works: The Sculpture of David Smith*, 153.

<sup>7</sup> Sullivan, 46-51.

<sup>8</sup> *Idem.*, 239-291.

Carnadente invited Calder to create either a mobile or a stabile for the exhibition, and, by March 1967, the artist had apparently decided, in contrast to what he originally told Carnadente, that he would prefer to make a stabile rather than a mobile for the event.<sup>9</sup> [fig. 161] After he sent letters suggesting the enlargement of an extant maquette, Carnadente reassigned him to a new site in Spoleto, a roundabout in front of the city's train station, and explained that Calder's piece would now become the entry point to the city and exhibition. Calder sent a 30-inch maquette, which he widened in accordance with his new understanding of the intended site for the work, and informed Carnadente that he would provide final suggestions as to reinforcing the work at an unspecified date, sometime after Italsider's workers produced it.<sup>10</sup> The maquette was comprised of four intersecting planes; one contained an arch and a high point with pointed top; two smaller planes intersected with it to form two asymmetrical and offset arches; another plane of metal rising to form the second-tallest point in the work pierced with one of the smallest supporting planes. Calder informed Carnadente that it was to be called *Teodelapio*, after an Italian duke whose hat, as featured in a painting Calder had seen, inspired the form of the stabile.

Calder would emerge as the only one of the ten commissioned artists who elected not to take up any residency in Italy to fulfill his commission. This decision may have been informed by the fact that Calder had unique prior experience in producing large-scale commissions through long-distance collaboration with industrial workers in the 1950s, in Caracas and Germany. In either case, through correspondence with Carnadente and Italsider employees, the 30-inch maquette Calder had prepared was enlarged to a 59-

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<sup>9</sup> Calder to Carnadente, March 27, 1962, in Carnadente, 18-19 and 44.

<sup>10</sup> Carnadente, 42.

foot tall, 30-ton stabile and installed, with the help of two industrial cranes, into a concrete bed that was poured into an excavated pit beneath the public roadway. However, after the team discerned that the stabile could become dangerous, as it was susceptible to the strong winds that prevail in the Appenines, Calder made a hasty trip to the exhibition and, working with a model for the piece, designed reinforcements to keep it upright.<sup>11</sup>

[figs. 162-163]

Thanks to these last-minute interventions, *Teodelapio* was able to function in a multivalent manner. As Marin Sullivan illustrates in her recent dissertation on exhibitions of abstract sculpture in Italy, in addition to functioning as an archway that visitors could encircle and travel beneath as they left the train station and headed into the town and festival, *Teodelapio* also “provided an effective introduction to the conceptual framework of the exhibition: largely abstract, massive in scale, made of industrial materials.” Seeming as it did to “dominate the square,” debate ensued as to whether its presence, and by extension, that of the other works in the show, represented an “integration or invasion” of sculpture into civic space; one article on *Teodelapio* even posed the question in its title: “Integratzione o invasione?”<sup>12</sup> Ultimately, Spoleto’s citizens warmed to the presence of *Teodelapio* and the other sculptures in their streets; one technician explained that after two weeks, members of the public began to request that additional works be installed near their own homes or shops.<sup>13</sup>

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<sup>11</sup> *Ibid.* and Osborn, 38. It is interesting to consider how the established relationships that Calder shared with Carnadente and James Johnson Sweeney were key to their invitation for him to resurrect the piece, and its final success; by contrast, *Rosenhof*, which appears to have been erected in the artist’s absence, may well have disappeared mysteriously due to the inability to come to as similar resolution in a context wherein the commissioners and artist were less collaborative.

<sup>12</sup> Sullivan, 57.

<sup>13</sup> *Ibid.*

### ***La Grande Voile (1966)***

While Calder had been the only sculptor commissioned for the *Scultura nella citta* exhibition who did not choose to be on site during the initial fabrication of his sculpture, he took an opposite approach in 1964, when he was invited to submit a proposal for a large-scale work to be situated in front of a critical, just-dedicated building at the Massachusetts Institute of Technology (MIT), the Green Building for the Geophysical sciences which had been designed by the architect I.M. Pei.<sup>14</sup> The Green Building was a manifestation of the school's recent attempts to establish itself at the forefront of innovation in the earth sciences, and thereby serve an integral role in the international space race, and its construction brought about a radical renovation of the heart of the university's campus.<sup>15</sup>

Soon after the commission to design the building had been awarded to Pei, a 1940 graduate of MIT, he persuaded the board to abandon plans to construct an eight story building that was in keeping with the stature of the surrounding edifices, and to approve, in its stead, a 21-story tower that would function as a new physical center for the campus. When completed, the Green Building was not only the tallest building on MIT's campus, but also one of the most prominent in Cambridge, from which it received a height ordinance exemption. Pei described the Green building as a "flagpole" and centering element for the university's campus. The Green Building's façade, a grid of concrete-

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<sup>14</sup> The Green Building was Pei's first major independent project. Formerly, he worked for the New York architect William Zeckendorf. Michael Cannell, *I.M. Pei: Mandarin of Modernism* (New York: Carol Southern Books, 1995), 153.

<sup>15</sup> Ceil Green, the founder of Texas Instruments and his wife pledged a gift to finance the construction of a new home for geophysical science at the school in 1960. Robert Rakes Schrock, *Geology at M.I.T. 1865-1965, Volume II* (MIT Press: 1982), 144.

encased windows which permitted a maximum of light without putting undue strain on the building, was quickly identified as a space which would need to be alleviated by some form of large-scale, curving sculpture, and before construction was complete, the university's Friends of Art Committee set to the task of commissioning a major piece of sculpture to stand in a courtyard that fronted it.

At Pei's suggestion, in the fall of 1963 the committee utilized its own connections, including local gallerists and curators, to put together an initial list of candidates; Calder's name was put forth by a Boston gallerist who had shown the artist's work in the 1950s. By early 1964 the Committee had narrowed the field down, and by October 1964 (the same month that the building was dedicated) had settled upon four final candidates: Calder, Richard Lippold, David Smith and Isamu Noguchi.<sup>16</sup> The candidates were invited to MIT and shown the Green Building and its courtyard (named the McDermott Courtyard, after other prominent donors), as well as other new buildings which they hoped the sculptors would consider for future potential commissions.

Of the artists that visited with Pei and other members of the committee at the campus in October, Calder emerged as the only one to immediately grasp the opportunity to interrelate a piece of sculpture with both Pei's groundbreaking building, the educational environment, and to propose a work that could be made promptly, and would require little maintenance after its erection. From an early point, he expressed interest in placing his work directly in front of the Green Building, and in creating something that

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<sup>16</sup> Minutes of the Art Committee Meeting, April 5, 1964, folder 6, 1960-62, MIT Art Committee Records, AC 66, MIT Archives and Special Collections, Cambridge, Mass.. At this juncture, Pei stated that his first choice was for Arp, and then Noguchi. Minutes of the Art Committee Meeting, October 4, 1964, folder 6, 1960-62, MIT Art Committee Records AC 66. It is noteworthy that Pei does not appear to have submitted Calder as a suggestion; Art Committee Meeting notes from November 17 state that his name was submitted by the Joan Petersen Gallery, Boston, which showed Calder's work in the 1950s.

would not only be large, but like *Teodelapio*, expressly meant for the public to walk *through*. By contrast, although Smith and Lippold were interested in making a piece that either acknowledged the physical or intellectual environment of the University, neither proposed a work that would be nearly as accommodating to the site or the community that it supported; Smith wished to create a new curvilinear form of sculpture as a complement to the Pei building, however, he wished to do so on a self-contained lawn farther from the building. Lippold wanted to create a fountain that would incorporate and symbolize engineering “feats,” but the committee questioned the feasibility of such a work in New England’s climate.<sup>17</sup>

Although Smith and Lippold were both younger than Calder (Smith by twelve years, Lippold by seventeen), the older artist demonstrated the most timely sensitivity to the questions about how large-scale abstract sculpture could relate to its environment. This distinction arguably reflected the efficient approach that *Scultura nella citta* and so many other prototypical long-distance commissions had required him to develop: an approach free of the sort of laborious, expensive sort of experimentation that Smith and Lippold proposed. This appears to have given him the edge in the competition; when the Committee made took its final vote on the commission, in December 1964, Pei voted for Calder and laid out his reasoning in a telegram to the Friends of Art Committee. The message revealed his underlying preference to work with a sculptor who thought like Calder, with a true “concern for space” and environment. While he found Smith’s and Lippold’s sculpture more to his taste aesthetically, he admitted that neither seemed to grasp the requirements of the site. Therefore, although, as Pei wrote, “[I] have not been

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<sup>17</sup> Minutes of the Art Committee Meeting, December 6, 1964, folder 6, 1960-62, MIT Art Committee Records, AC 66.

too fond of Calder's mobiles," "his stabiles have exciting possibilities[,] his Spoleto experiment in giant scale very successful[;] the sensation of being able to not only walk around but through and under it introduces [a] new concept in environmental [sculpture.] His technique and materials simple and direct[,] his forms will complement geometric regularity of volumes and spaces of Eastman complex[,] my vote therefore goes to Calder."<sup>18</sup> The committee went on to vote unanimously in favor of Calder.

The work that Calder completed in fulfillment of his commission, a 40-foot tall stabile entitled *La Grande Voile* (1966), represented an even newer "concept in environmental sculpture" than *Teodelapio*, [figs. 164-165] Like *Teodelapio*, *La Grande Voile* also had a dynamic sense of vertical motion, and was comprised of major planes of sheet metal which intersected to form archways. *La Grande Voile* also retained the ability noted in *Teodelapio* to encapsulate and relate to expansive vistas; whereas the former had framed the town of Spoleto, the latter relates compellingly to two other focal points in the surrounding environs: the sailboats on the Charles River, which are often visible directly in the sightline of Calder's sculpture, thanks to the location of MIT's boathouse on the banks of the Charles almost directly in front of McDermott Courtyard; and Boston's iconic Prudential building, the city's first curtain glass skyscraper, which, when viewed from the aperture that the intersecting planes of *La Grande Voile* create, appears to be in the direct line of the Green Building. [fig. 166]

The experience of circumnavigating and viewing *La Grande Voile* developed that of *Teodelapio* in two critical ways. As a pedestrian walks in and around *La Grande Voile*, its planes reorganize themselves to frame surrounding space with a dramatic variety of

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<sup>18</sup> Pei to Mrs. Julius [Catherine] Stratton, December 6, 1964, 1964-66, folder 10, MIT Art Committee Records, AC 66.



wide to narrow vistas; by contrast, the well-spaced and relatively slender legs of *Teodelapio* frame generous vistas of Spoleto, from multiple angles. The curved and more closely related upper regions of *La Grande Voile*'s elements also permit it to seem to enclose even the top of the 21-story Green Building, whereas *Teodelapio*'s tallest points are more distanced from one another, and interact with the lower rooflines of Spoleto's buildings in a less dynamic way. Another new feature that *La Grande Voile* introduced was an aestheticized support system of braces and bolts; Calder reported that in this work he made his first conscientious effort to regularize these elements' appearance by ensuring that they were all oriented in the same direction.<sup>19</sup>

After creating this new "environmental experience" in *La Grande Voile*, there was no question that, even if the work may have, like *Teodelapio* at Spoleto, seemed to "invade" an open space on MIT's campus, the "invasion" was a welcome one that helped organize the space in the aftermath of construction of the new and dominating Green Building. The stabile was acclaimed by the faculty and students of MIT, and quickly utilized by Calder's dealer, Klaus Perls, as a form of advertisement for future commissions that would develop as further experiments in using industrial methods to design highly reciprocal abstraction sculptures for public space.<sup>20</sup>

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<sup>19</sup> Osborn, 44.

<sup>20</sup> Perls appears to have invited W. Arnold Phillips and his wife to the dedication of *La Grande Voile*. Perls to Phillips, May 3, 1966, Correspondence Folder, Canadian Corporation for the 1967 World's Fair, 1965-1966, Perls Galleries records, 1937-1997, Archives of American Art, Smithsonian Institution.

## **The Stabile's Integration into Postmodernist Urban Fabrics: Calder's Watershed Commissions of 1967-69**

Calder's success in further developing, in Pei's words, his "environmental sculpture" for MIT quickly parlayed into another commission that would become the first of a triad of stables designed for ever-greater and more socially significant sites: *Man*, a 67-foot stabile designed for Montreal's International Expo of 1967; *El Sol Rojo*, a 72-foot stabile designed for the 1968 Mexico City Olympics; and *La Grande Vitesse* (1969), a squatter but more massive 42-ton stabile designed for a federal plaza complex in Grand Rapids, Michigan, which was the first public work of art to be funded by the National Endowment for the Arts' Percent-for-Art Program.

Although Calder evinced the same keen attention to the demands of site and audience in these commissions as that he had given to his MIT commission, the size of these works has been emphasized to the detriment, and often the exclusion of, how they related to their particular physical and social environments. As a result, these commissions have typically been remembered and discussed as stand-alone forms. In reality, they were conceived of by Calder and experienced by their original audiences as critical aspects of larger efforts to redefine urban space and how it was experienced and perceived by the public.

### ***Man* (1967)**

Calder received the first of these commissions as the plans for the installation of *La Grande Voile* were being finalized. In late 1965, W. Arnold Phillips, the Project Architect of Montreal's Expo '67, visited Calder at his home in Roxbury to "discuss the

possibility of a piece of [his] sculpture at Expo '67," specifically, at the arrival plaza for the monorail linking downtown Montreal and Ile Ste. Helene. Through Arnold's arrangement, the International Nickel Company agreed to sponsor the plaza, "including a large Calder."<sup>21</sup>

Although, in a later interview, Calder recalled the commissioners' request that the work be not simply "large" but an unprecedented 67 feet in height, to reflect the year of the Expo, as a ridiculous proposition, the physical and social context of the commission demonstrates that this request was not quite as frivolous as he implied.<sup>22</sup> Instead, it seemed in keeping with the new mega-scale of the city of Montreal, which had undergone profound changes in the 1960s, as the result of decades worth of planning to renovate its crumbling infrastructure and rebuild itself as an archetypal postwar metropolis. This contentious and fast-paced process entailed the demolition of broad areas of historic buildings, the construction of freeway and subway systems, and the erection of massive skyscrapers. The first and one of the most significant was the Place Ville Marie, designed by Pei when he was a partner in William Zeckendorf's architectural firm, prior to founding his own practice and designing the Green Building at MIT.<sup>23</sup> Place Ville Marie is a 47-story cruciform skyscraper, which, when completed, was the third-largest in the world outside the United States. [fig. 167] Expo '67, organized only a few years following the completion of Place Ville Marie, was embraced by Montreal's bureaucrats as an opportunity to advertise the city's new status as the

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<sup>21</sup> Phillips to Calder, December 17, 1965, Correspondence Folder, Canadian Corporation for the 1967 World Exhibition, 1965-66, Perls Galleries records.

<sup>22</sup> Osborn, 45.

<sup>23</sup> Cannell, 143.

business center of Canada, and its ambitions to continue developing as the “city of the future.”

The Expo grounds were built on Ile. Ste. Helene, in the St. Lawrence River, which was linked to the core of the newly towering heart of the city by an advanced monorail system. [fig. 168] The theme of the event was “Man,” and tripartite, pyramid-like pavilions devoted to exhibitions on Man as explorer, creator and producer set the tone for the immense, boldly geometric modern architecture of Ile. Ste. Helene, which also included the world’s largest geodesic dome, designed by Buckminster Fuller. By contrast to the majority of post-war world exhibitions, including the most recent world’s fair, in New York, where pavilions invited visitors to test out industrial products ranging from new Ford automobiles to hair dyes, Expo ‘67 deemphasized corporate advertisement.<sup>24</sup> This combination of a strikingly colossal modern group of pavilions and general strictures on advertising made sponsoring such a large, beacon-like stabile especially good business for INCO. The company was at that time the world’s leading producer of nickel, and demand for its product had increased, and taken on nefarious connotations as an American resource in the Vietnam War.<sup>25</sup> INCO provided all the

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<sup>24</sup> André Lortie, *The 60s: Montreal Thinks Big* (Montreal, Canadian Centre for Architecture, 2004), 142 and John M. Lee, “Companies Display the Soft Sell at Expo 67,” *New York Times* May 1, 1967, 55.

<sup>25</sup> “Nickel sales were given yet another boost by the Vietnam War, in which the United States employed a vast array of sophisticated weaponry, the bulk of it requiring nickel-hardened steel. Responding to the bull market, Inco launched a comprehensive program of refurbishment and expansion of its facilities that would eventually cost more than US\$1 billion. For the first time in its history, Inco borrowed money to finance its big expansion, and it chose to continue to concentrate on the mining of high-grade, relatively expensive nickel at a time when many competitors had come up with useable nickel oxides and ferro-nickels that were readily available and inexpensive.”

<http://www.referenceforbusiness.com/history2/59/INCO-LIMITED.html#ixzz3x5u09XqR>

stainless steel required to produce Calder's immense stabile, and paid him \$135,000, by far his largest paycheck to that point (as a comparison, *La Grande Voile* cost \$50,000).<sup>26</sup>

Calder's dismissiveness of his commissioners' request for a 67-foot work notwithstanding, the Expo stabile quickly took on a life and urgency of its own. By April 1966, Calder had created a model for a work that would require 40 tons of stainless steel sheets, in varying thicknesses, and "several thousand pounds of stainless bolts." Even as yet lacking "a firm order" he and Biémont were "proceeding with the 4-meter model comprising all reinforcement and sheet cut details."<sup>27</sup> Two weeks later, Calder's dealer Klaus Perls congratulated Phillips heartily on their impending "collaboration which, we all hope, will result in a major landmark on this continent" and invoiced him \$10,000 for a 29 x 33 x 20-inch model of the stabile.<sup>28</sup>

Despite new challenges that working on such a large scale presented to Calder and his team at Biémont, *Man* was delivered on schedule and to the immense delight of the Expo organizers, Perls and the workers who had constructed it, some of whom, poignantly, asked Perls to fly them to Montreal to see "leur Homme" in-situ.<sup>29</sup> Photographs of the work on the Expo grounds demonstrate that it functioned as an archway or open pavilion in and of itself, which visitors traversed on their way to the main attractions of the Expo. [figs. 169-170]

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<sup>26</sup> Perls to Phillips, April 27, 1966 and Invoice, to the attention of Mr. W.A. Phillips, April 27, 1966, Canadian Corporation for the 1967 World Exhibition, 1965-66, Perls Galleries records.

<sup>27</sup> Calder to Perls, April 13, 1966, Correspondence Folder, Canadian Corporation for the 1967 World Exhibition, 1965-66, Perls Galleries records.

<sup>28</sup> Perls to Phillips, April 27, 1966 and Invoice, to the attention of Mr. W.A. Phillips, April 27, 1966, Correspondence Folder, Canadian Corporation for the 1967 World Exhibition, Perls Galleries records.

<sup>29</sup> Jacques Bazillon to Perls, March 14, 1967, Correspondence File, "Etablissements Biémont, 1966-1967," Perls Galleries records.

The final work on and negotiations around *Man* underscore how working at such a scale, for specific urban sites, entailed Calder's constant renewal and development as an artist. The scale of *Man* was but one factor that differentiated the work from the artist's prior commissions for public space; designed as it was to serve as a marker of visitors' entrance to the futuristic Expo, its form also helped it function, similarly to the other pavilions at the Expo, as a site of collective experience. While its relatively simple legs kept the arrivals terminal open enough to accommodate collective viewing of and movement to the main Expo grounds, from the ground level viewers would not witness the structure's planes interact and transform against one another and the surrounding environment, as did those of *Teodelapio* and *La Grande Voile*.

A last-minute and contentious alteration to *Man*'s surface also demonstrated how a commission of such a scale forced the artist to alter his aesthetic approach: Calder expressed a strong desire that the work retain the marks and scars that had accumulated on the stainless steel in the process of preparing its constituent plates – a preference that suggests that there was both a desire to emphasize the artisanal aspects of his practice, and also that the realities of viewing a work at such a scale were a bit difficult for the artist to grasp.<sup>30</sup> Nevertheless, Expo organizers prevailed upon him to have it cleaned. Perls reported that the end result “looks like the finest silk cloth; there is no sheen, just a

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<sup>30</sup> Calder was very opposed to buffing out the “scars;” he wrote to Kenn Clarke, “I am also very keen to see the surface shall remain as it is with the scars of the work done and I would like you to assure me that nothing further shall be done: no passivation, no sand blasting – a lot of surface polish would take a lot of earthly ruggedness out of the object and spoil its character, we don't want it to look like kitchenware... (sic).” Calder also listed the many publications which had published about *Man*: *Figaro*, *Time*, *Life*, *NYT*, *Nouvelle Republique*...” Calder to Clarke, January 30, 1967, Correspondence Folder, The International Nickel Company, 1967-73, Perls Galleries records.

satin glow, and Sandy himself thought that it now looked just fine.”<sup>31</sup> While this comment comes across as obsequious, the artist would in fact regularize the surfaces of all his future works of comparable scale with flat paint.

### ***El Sol Rojo (1968)***

Calder’s next two major commissions also came from architects and factored into similarly ambitious attempts to revolutionize the appearances and perceptions of life in specific cities. The first came from Mathias Goeritz, the chief architect of the 1968 Olympics in Mexico City.<sup>32</sup> This Olympics undertook to renew the historic version of the event as an international festival of sport and culture.<sup>33</sup> To this end, Goeritz organized an ambitious sculptural program for the city, *La Ruta de Amistad* (the Road of Friendship) for which he commissioned twenty some sculptors from various countries to create monumental concrete works for the main highway circling the metropolis. He also organized an International Meeting of Sculptors, and invited Calder to serve as its guest of honor, and produce a monumental work in steel for the plaza of the main Olympic stadium.<sup>34</sup>

Calder accepted Goeritz’s invitation, designed a stabile entitled *El Sol Rojo*, and sent material specifications and assembly instructions to Mexico prior to attending the

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<sup>31</sup> Perls to Clarke, April 30, 1967, Correspondence Folder, The International Nickel Company, 1967-73, Perls Galleries records.

<sup>32</sup> Fisher, *El Sol Rojo*, n.p..

<sup>33</sup> Goeritz, Mathias, “‘The Route of Friendship:’ Sculpture,” *Leonardo* 3 no. 4 (October 1970): 397-407.

<sup>34</sup> “International Meeting of Sculptors,” *Official Report of 1968, Produced by the Organizing Committee of the Games of the XIX Olympiad*, (1969), Volume 4, Part 2, 357-383.  
<http://library.la84.org/6oic/OfficialReports/1968/1968v4pt2.pdf>

International Meeting of Sculptors. [fig. 171-172] *El Sol Rojo* reflects the practical experience he had gained in creating *Man*, a work of similar stature that helped complement the surrounding environs, and direct traffic to them; the *New York Times* reported that the piece “dominates the surroundings rather than being dominated by them.”<sup>35</sup> At 72 feet tall, *El Sol Rojo* barely, but significantly to the Olympic organizers, replaced *Man* as the artist’s largest work.<sup>36</sup> [figs. 173 – 174] *El Sol Rojo* differed from *Man* in two critical respects: it was manufactured, based on Calder’s sketches, in Mexico City, but, in spite of his instructions, its components were welded, rather than bolted together, thus removing one major element of creative expression that Calder had developed in *La Grande Voile* and *Man*. *El Sol Rojo* also contrasted these prior works for its distinctly symmetrical and graphic nature; its main element was an immense red disc, the “sun,” which was supported by three immense black legs.

During the course of the Games, the stabile also complemented and accentuated its site, the vast plaza containing the Estadio Azteco, which boasted a blue and white Op Art pattern that appeared to be emanating from the stabile’s legs. This Op Art design reflected the ’68 Olympics’ publicity scheme wherein graphic art was used to unify numerous elements of Mexico City, including non-Olympic sites and official areas for the games; for instance, the symbol of a dove was displayed on banners, bulletin boards, and building facades to convey the central theme of the games, “Anything is possible in peace.”<sup>37</sup> [figs. 175-176]

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<sup>35</sup> Harold Schoenburg, “Sculpture on Road in Mexico Fuels Debate,” *New York Times*, November 14, 1968, 51.

<sup>36</sup> Fisher.

<sup>37</sup> *El Sol Rojo* was praised by the Olympic Committee for being “in complete harmony with the surroundings,” “International Meeting of Sculptors,” 358. Eric Zolov, “Showcasing the Land of Tomorrow:



### *La Grande Vitesse (1969)*

Once again, Calder was engaged to design another major commission prior to the installation of *El Sol Rojo*. The new commission, for a public plaza in Grand Rapids, Michigan, would entail significantly more effort on the artist's behalf than those of 1967 and 1968 for Montreal and Mexico City, because it required public fundraising. The catalyst of this commission was an application by Nancy Levant Mulnix, one of the city's staunchest patrons of the arts, for a grant from the newly-restituted Percent-for-Arts program of the National Endowment for the Arts. Grand Rapids had recently undergone an extensive redevelopment project, which entailed the razing of much of its historic but largely abandoned downtown. Skidwell Owings and Merrill had designed a government complex for the heart of the redeveloped area, consisting of two curtain-wall buildings and an adjoining plaza, named after the late Michigan senator Arthur Vandenberg.<sup>38</sup> Although a fountain had been planned for the plaza, the Vandenberg Center Sculpture Committee, at the suggestion of the plaza architect William Hartmann, applied for a grant for a major piece of work for the same site.<sup>39</sup> In 1964, Hartmann had led successful efforts to commission Picasso for a monumental piece of public sculpture for Chicago's Daly Plaza, another vast urban space bordered by unadorned plate-glass buildings. The

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Mexico and the 1968 Olympics," *The Americas* 61 no. 2 (October 2004), 159-188 and Luis Castaneda, "Choreographing the Metropolis: Networks of Circulation and Power in Olympic Mexico," *Journal of Design History* 25 no. 3: 285-303.

<sup>38</sup> Garret Ellison, "The Architect: How a New York Consultant Sold Grand Rapids on Urban Renewal," *MLive.com* May 20, 2014. Last accessed April 27, 2016. [http://blog.mlive.com/grpress/news\\_impact/print.html?entry=/2014/05/urban\\_renewal\\_jones.html](http://blog.mlive.com/grpress/news_impact/print.html?entry=/2014/05/urban_renewal_jones.html)

<sup>39</sup> Betty Blum, "Oral History of William Hartmann," Chicago Architects Oral History Project, Ernest R. Graham Study Center for Architectural Drawings (Chicago: Art Institute of Chicago, 1991, rev. ed. 2003), 159. Last accessed April 27, 2016. <http://digital-libraries.saic.edu/cdm/ref/collection/caohp/id/23045>

commission, *Head of a Woman* (1964) was a source of immense civic pride for Chicago's citizens and bureaucrats.<sup>40</sup> [fig. 177]

Hartmann had also been associated with the Terrace Plaza Hotel in the 1940s, a Cincinatti skyscraper designed by Gordon Bunshaft for which Calder produced a commissioned mobile.<sup>41</sup> As the architect of Vandenburg Plaza, Hartmann was a member of the commissioning committee that the city established after the NEA awarded it a grant. He suggested that Calder be asked to design a work for the plaza and the committee approved immediately.<sup>42</sup> By August 1967, Hartmann flew to Saché to discuss the commission with Calder.<sup>43</sup>

Although Calder expressed interest in the commission, he informed Hartmann that it would cost \$150,000 – the same sum charged for *Man*. In addition to requiring more than twice as much as the NEA grant would provide, going forward with the commission would entail a loss of funds already invested in a fountain originally planned for the plaza, and paying an additional sum to reverse what work had already commenced on it. Another challenge that the commissioning committee faced in their early efforts to garner support and the necessary funds to realize the work was local opposition to the fact that the workforce Calder would utilize was French.<sup>44</sup> This constellation of problems

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<sup>40</sup> “Art for Our Architecture,” *Chicago Tribune*, April 25, 1973, 20.

<sup>41</sup> The mobile was *Twenty Leaves and an Apple* (1947). Wick, 79.

<sup>42</sup> Blum, 132 and 159 and Program from Dedication of *La Grande Vitess*, Correspondence, File “Calder Project, Grand Rapids MI, 1969,” 5 of 6, Perls Galleries records. By the time of Hartmann's trip to Saché, Calder had already seen the completed and installed *Man* in Montreal.

<sup>43</sup> Vandenburg Center Sculpture Project, “Sequence of Events Preceding the Dedication,” press release for April 18, 1969, Correspondence File, “Calder Project, Grand Rapids MI, 1969,” 1 of 6, Perls Galleries records.

<sup>44</sup> Perls to Mulnix, January 19, 1968, in Nancy Mulnix correspondence folder 3 of 3, Perls Gallery records. Mulnix battled for support of the project prior to seeing the maquette; Calder's model for *La Grande*

prompted Mulnix to develop a compelling narrative about the power and function of Calder's work in Grand Rapids' civic space. Her signature description of the project, as reported in a press release on Mulnix's role that was authored on the occasion of the dedication, was: "I guarantee you'll feel its power, its vitality, its thrust and its dignity, it is a positive thing! A monument to man's ability to imagine and create."<sup>45</sup>

Mulnix's description of what Calder could offer to Grand Rapids is compelling for reflecting an understanding that, in spite of the scale and weight of the sort of public commission that he planned to create for the city, the final product would not constitute a traditional, imposing monument or landmark. Calder's own interest in promoting the project may have factored into Mulnix's understanding of the impact of his work; prior to his design of the maquette for *La Grande Vitesse*, he and Perls donated one of his gouaches to the city, to be auctioned in a fundraiser for the fees in excess of the NEA grant.<sup>46</sup> Mulnix may have been influenced by her knowledge of Calder's other large-scale work; she visited Mexico and saw *El Sol Rojo*. She also had extensive correspondence with Perls, who is likely to have molded her opinions of Calder's work. Mulnix was also aware of the fact that Calder based his design for *La Grande Vitesse* on the space of the plaza where it was sited, as well as the surrounding buildings.<sup>47</sup>

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*Vitesse* was shown to Grand Rapids Committee in Saché on May 11, 1968. Vandenburg Center Sculpture Project, 4.

<sup>45</sup> Vandenburg Center Sculpture Project, undated press release, 3, Correspondence File, "Calder Project Grand Rapids MI La Grande Vitesse, 1969," 5 of 6, Perls Galleries records.

<sup>46</sup> *Ibid.*, 4.

<sup>47</sup> Calder himself qualified his approval of the final piece by stating that even though the buildings weren't where he expected, he approved of *La Grande Vitesse*. Dan Miller, "Gnarled, Aging Calder Seems Ready to Relax Now," *The Grand Rapids Press*, June 14, 1969, Correspondence File, Calder Project Grand Rapids MI La Grande Vitesse, 1969, 1 of 6, Perls Galleries records.

The necessary funds were raised by March 1968, and after Biémont completed the final work in March 1969, it was shipped to the United States. The stabile was assembled and installed in June, with the oversight of an American engineer, Jack Busch, who had visited Biémont and witnessed the initial construction of the piece.<sup>48</sup> Although the installation was not without controversy, it was a unique event in America, far outpacing the fanfare of prior installations of Calder's stables. The event was also attended by many of the artist's close friends; James Johnson Sweeney claimed that it was the artist's best work yet.

The main element of the 42-ton piece is a muscular arch positioned diagonally in relation to the plaza. [figs. 178-179] Intersecting this arch are three gracefully curving planes, comprised by bolted-together steel plates. The massive arch foreshortens to the point of disappearance from certain vantage points; from others, its full length framed the vistas of Grand Rapids' downtown. [fig. 180] Other vantage points demonstrated the morphological attributes of the three curved, biomorphic sections. [fig. 181] The fluidity with which the massive work seems to expand and contract in space, to display its heft and just as quickly fold into something that appeared as only a fraction of itself, made it an especially poetic affirmation of Mulnix's campaign to describe the stabile as something capable of opening the minds of Grand Rapids' citizens, and well worth the significant funds they donated.

The humanistic attributes that Mulnix attributed to Calder's commission during the course of its development were also reflected in *La Grande Vitesse*'s later role in Grand Rapids. Mulnix reported in the early 1970s that it had become known as "the

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<sup>48</sup> Vandenburg Center Sculpture Project, Press Release, April 18, 1969 and idem., "Forty Two Ton Art and the Language Barrier," undated press release, Calder Project Grand Rapids MI La Grande Vitesse, 1969, 1 of 6, Perls Archives, Perls Galleries records.

Peace Calder,” and was a gathering spot for anti-war demonstrations.<sup>49</sup> In 1972, at the request of a group of employees in the tall county building that *La Grande Vitesse* fronted, and looked down onto the unadorned rooftop of the other building that flanked the stabile, Calder designed a rooftop mural decoration to further enhance the Plaza’s aesthetic appeal. Harriet Senie also states that the popularity of the stabile was the impetus for “Sculpture off the Pedestal,” “a citywide exhibition of large-scale outdoor sculpture [which]... prompt[ed] the acquisition of even more public art for the city.”<sup>50</sup>

### **Calder’s Early 1970s Platform as a “Signal[er] in the City” and Public Interlocutor**

In the years following the 1969 unveiling of *La Grande Vitesse* Calder designed more than twenty additional stabiles on commission for prominent urban sites, and many others that he produced on speculation were purchased for other public sites. The correspondence regarding commissions for stabiles in the archives of Calder’s dealer Klaus Perls repeatedly demonstrates the effort that Calder made to ensure that pedestrians encountered stabiles, whether commissioned or bought from his dealer, from points of great impact, even in less-passable locations than Grand Rapids’ open and expansive Vandenberg Plaza.<sup>51</sup> In accordance with these privately expressed interests, as Calder developed these additional, immense stabiles for public sites ranging from Chicago to Jerusalem to Sydney, Australia, he revealed a new interest in discussing the role that his work played in public space. [fig. 102]

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<sup>49</sup> Mulnix to Perls, May 12, 1972. Mulnix, Mrs. Nancy, 1971-78, folder 1 of 2, Perls Galleries records.

<sup>50</sup> Senie, 146.

<sup>51</sup> Several commissions were developed so that the stabiles’ scale, shapes and interrelations of the arches and planes created forms to complement and impact the sites for which they were commissioned: *Stegosaurus* in Hartford, CT; *Jerusalem*; *Tres Ailes* for the Port Authority in New York.

With the completion of more immensely-scaled commissions, the artist became outspoken about the role his work played in public space. “Calder’s International Monuments” a 1969 interview by Robert Osborn, the imminent caricaturist and a dear friend of Calder’s made no mention of how Calder’s largest-scale pieces interacted with and affected their sites (interestingly, the interview was conducted prior to the installation of *La Grande Vitesse*). By contrast, Ted Morgan reported in a profile he wrote on Calder, “A Visit to Calder Kingdom,” published in the July 7, 1973 *New York Times Sunday Magazine*, that the artist described his large-scale public commissions as a forces in the organization and humanization of modern urban space. In response to Morgan’s question about whether he was bothered by the siting of his work in “congested” spaces, Calder claimed, to the contrary, “they’re like a bunch of flowers on a table.” He cited .125 at the International Arrivals Terminals J.F.K. Airport as an example of how his work could help “hold [...] together” an immense modern building, and prevent such spaces from “[looking] awfully empty.”<sup>52</sup> [fig. 115] In late 1973, the French journalist Maurice Bruzeau began his compilation of Calder’s “rough words and thoughts” (which he described as a source of “better knowledge on Calder than any exegesis”) with a similarly direct statement by Calder on the role that his work could play in public space: “A sculpture in the town should be used like a sea or river navigation marker with its red discs, its squares and its black triangles. It should be designed as a real urban signal.”<sup>53</sup>

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<sup>52</sup> Morgan, 32. Calder referred to the airport by its current name, J.F.K. At the time of his commission its name was Idlewild, as stated in Chapter Three.

<sup>53</sup> This reflected Calder’s stated preference for designing work for a specific site, large or small. Calder made this statement as early as 1960. He explained to Geoffrey Hellman: “It’s true I’ve more or less retired from the smaller mobiles. I regard them as sort of fiddling. The engineering on the big projects is important; they’re mostly designed for a particular spot, and they have to fit properly or either support themselves properly or hang from the ceiling properly. Lots of times companies or government agencies have a big vacuum in their projects that they feel ought to be filled – that’s where I come in.” “Onward and

Bruzeau also recorded a lamentation by Calder that architects “work backwards” because “they build, then they choose the work afterwards,” he singled out *La Grande Vitesse* as a “good example of the integration of the work into urbanism,” because it was sited in a sufficiently open space, and provided opportunities for the public to “walk and stroll around the sculpture, they meet there to discuss, to demonstrate.”<sup>54</sup>

Calder’s self-identification as an artist whose works could significantly affect public space and activities suggests his pride in the fact his late-career success had developed in parallel with two key strains of postmodernist art. The first of these was minimalist sculpture. As Marin Sullivan explains, *Scultura nella citta*’s “present[ation of works] not as dead, limited objects to be admired from a distance for their formal attributes, but as a collective living presence wonderfully altered by changing conditions and contradictory surroundings, as something... never finished,” established it as a forerunner to the sorts of encounters between viewers, sculpture and public spaces that were the main preoccupations of minimalist sculpture; “practice[s that] began to embrace site, display, and ephemerality,” and reposition “installation and interaction of the work with audience” from “afterthoughts” to “integral aspects of sculptural production.”<sup>55</sup>

In the period between the 1962 *Scultura nella citta* exhibition and the 1966 dedication of *La Grande Voile*, minimalism came to the fore of American art. In 1964, the sculptor Robert Morris created a watershed installation in the Green Gallery of what Rosalind Krauss later referred to as “quasi-architectural integers whose status as

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Upward with the Arts: Calder Revisited,” *New Yorker* 36 (October 22, 1960), 163-164, 167-172, 175-178, in Prather, 279. He reiterated it in 1962 in an interview with Katherine Kuh, “Interview with Alexander Calder,” in *The Artist’s Voice: Talks with Seventeen Artists* (New York: Harper and Row, 1962), 42.

<sup>54</sup> Bruzeau, 52.

<sup>55</sup> Sullivan, 71.

sculpture reduces almost completely to the simple determination that it is what is in the room that is not really the room,” and in 1965 he produced another outdoor installation of mirrored boxes that, again, were only barely “distinct from the setting.” Krauss famously argued in her article “Sculpture in the Expanded Field” that Morris’ work, as a “combination of exclusions,” ushered in a new, postmodernist era in sculpture.<sup>56</sup> [fig. 10]

Contemporary critics also quickly proclaimed Morris’ work and the contemporary profusion of other basic, indeterminately architectural work as the dawning of a new “era” in modern sculpture. For example, the New York Times critic Hilton Kramer stated in his review of the “Primary Structures” exhibition at the Jewish Museum in 1966, the first major group show of minimalist work, that “Everything about the works of art included here – their scale, their materials, their radical renunciations – is a reminder that a new aesthetic era is upon us” and “there is no mistaking the fact that we are in a realm of feeling and ideas utterly removed from the pieties and assumptions that have governed a good deal of Modern art.”

The “pieties and assumptions” to which Kramer referred, and which minimalists generally agreed that they sought to repudiate, were anthropomorphic qualities and references, from indexical marks to references to the human body and movement. Calder occupied an interesting position in assessments and descriptions of this new work. Initially, Kramer and other critics ventured that Calder may be one of the few “Modern art” predecessors to the new art, due to his pioneering use of the same materials, and his

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<sup>56</sup> As discussed in the Introduction, Krauss described Morris and his generation as *post*-modernist for their acknowledgement of and willingness to explore definitions of sculpture that were more complex than simply “not landscape” and “not architecture;” these could include marked sites, axiomatic structures, site constructions. Krauss, 36.



development of work that, like the minimalists', occupied large tracts of space.<sup>57</sup>

However, the younger generation sought to distance themselves from his example, taking pains to differentiate their large-scale work from Calder's. In a symposium on "The New Sculpture" in May 1966, the sculptor Mark di Suvero, one of the first minimalists to create works rivaling Calder's in scale, explained that he was motivated by a desire to change perceptions of space, but, somewhat dejectedly, cited Giacometti as one of his inspirations, for how his sculpture "change[s] space through a new sense of scale," "although he had to use the figure." [fig. 182] Donald Judd similarly made an implicit rejection of Calder's approach to changing perceptions of space by stating that an artist doesn't "need to set up a certain amount of motion," or even work personally upon an object to "make [space] interesting."<sup>58</sup>

Although the elaborate interrelations of planes that characterized Calder's colossal stabiles made them unabashed examples of the manner of engaging space that the minimalists sought to work past, his immense stabiles related to minimalist work on numerous other levels. Like the younger generation's work, they invited, and in many senses required, the participation of their viewers. As undeniably industrially-produced objects, they also related to much contemporary minimalist work that was "ordered" by minimalist artists from foundries similar to Biémont. Their form and function were also indeterminate in a manner that reflected contemporaneous minimalist examinations; in the same year that *La Grande Voile* was unveiled, Tony Smith had described his six-foot cube, *Die* (1966), as something he designed concertedly to be large enough so as not to

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<sup>57</sup> Hilton Kramer, "'Primary Structures' – the New Anonymity," *The New York Times*, May 1, 1966, in James Meyer, *Minimalism: Themes and Movements* (London: Phaidon, 2000), 220.

<sup>58</sup> Mark Di Suvero, Donald Judd, Kynaston McShine, Robert Morris, Barbara Rose, "The New Sculpture," transcript of a symposium on "Primary Structures," the Jewish Museum, May 2, 1966, in Meyer, 220-222.

be a simple “object,” but also so as not to “[loom] over” viewers and therefore recall a “monument.” [fig. 183] However, a year later, Smith’s interest in scale led him to create a 50-foot tall open form structure, *Smoke*, on commission for the interior courtyard of the Corcoran Gallery in Washington, D.C. In publicity that reflected that which Calder had received on numerous prior occasions, in October 1967 *Time* magazine featured Smith standing underneath his immense work, described him as the new “Master of the Monumentalists,” and proclaimed the fact that his work had “outgrown” the museum.<sup>59</sup> [fig. 184]

Calder’s description of his own large-scale abstractions as “urban signals” in 1973 suggests a desire to promote himself in relation to minimalist practices, and a kind of challenge to the notion that the younger generation had produced a new “Master Monumentalist.” Another comment that Calder made in the course of his interview with Bruzeau reinforces the notion that, in spite of his advanced age (he was in his mid-seventies at the time) and residence in rural Saché, he retained a sense of healthy competition with urban avant-garde artists. At the end of the 1960s, a new strain of postmodernist art had emerged that eschewed the industrial production common to both Calder and minimalist work, and favored the use of more advanced technology, most notably cybernetics. In his provocative and highly regarded survey *Beyond Modern Sculpture: The Effects of Science and Technology on the Sculpture of This Century* (1968), Jack Burnham promoted such artists’ use of cybernetics as a means of creating a new relationship between the public and art, by enabling audiences to control and

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<sup>59</sup> “Art Outgrows the Museum” was emblazoned on the cover. “Master of the Monumentalists,” *Time* October 13, 1967: 80-86. It is noteworthy that Calder had outgrown the museum himself as early as the 1940s, when his work’s size was challenging to MoMA, and again when he independently decided, in 1962, to create works on spec that would be too large for the Maeght gallery.

develop not only publicly-displayed objects but also social situations. He saw this development as a natural outcome of interrelation between science and art that he argued had catalyzed the most compelling sculpture of the century.<sup>60</sup>

In the course of his interview with Bruzeau, Calder proclaimed, with apparent reference to the sort of work that Burnham promoted in the late 1960s and early 1970s, “I am not trying to create ‘technological poetry, either! I don’t even possess a machine. A sculpture cannot be made mechanically.”<sup>61</sup> On the one hand, this comment suggests that once Calder had achieved significant wealth and fame for the production of his colossal stabiles, he felt exempted from the need felt by many contemporary artists to seek out ever new, technologically-informed approaches to engaging the public.<sup>62</sup> Although he publicized his desire to influence American politics, he seemed to view his wealth and fame, rather than his art, as the most expedient vehicle for doing so: the Calders took out a full-page advertisement in the *New York Times* to protest the Vietnam War in 1966, and in the same year Calder donated a monumental stabile to the United Nations and re-

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<sup>60</sup> The premise of Burnham’s book was that the forefront of modern sculpture in the past century had been symbiotic with scientific discovery and theory because both art and science “were motivated by the same pangs of discovery and a desire for the consummation of ideas into beautiful totalities,” and that they related to a “common goal... to achieve some degree of irremediable control over the environment.” Louis Vaczek, Review of *Beyond Modern Sculpture: The Effects of Science and Technology on Sculpture of This Century*,” *Technology and Culture* 11 no. 4 (October, 1970): 658.

<sup>61</sup> This comment might also have suggested Calder’s awareness of and sense of competition with other sculptors, such as Richard Lippold and Charles Perry, who due in large part to their facility (and poetics) with lightweight technological materials ranging from fiber optic wire to aluminum tubing, produced works that rivaled Calder’s in dimensions.

<sup>62</sup> Ted Morgan reported that he had begun his time with Calder fascinated by the apparent irony of the fact that “while his life has been a flight from urban industrial zones and a return to nature, he uses industry to make the big stabiles, and depends on industry for the commissions.” When Morgan pressed Calder about how his success had affected him, the artist explained that his financial security permitted him to experiment on a large-scale in speculative on his own terms, without having to wait for commissions. This explanation conjures up a peculiar admixture of the romantic notion of the solitary artist in his studio, and Calder himself, directing the crews at the Biémont foundry in the splicing and bolting together of thousands of pounds of steel. Morgan, 38.

named it *Peace*.<sup>63</sup> The Calders also served on the Impeach Nixon Committee, and, one month before his death, Calder refused to accept the Medal of Honor; several months later, after Gerald Ford bestowed it upon him posthumously, Louisa refused to attend the ceremony, and reiterated the reasons for her late husband's opposition.

Despite Calder's disavowal of technological art as a means of engaging public interest, and the system that he had established to engage public attention in non-art avenues, in short course, contemporary events in American museum and architecture practices would present him with a distinctly timely and technologically-inflected opportunity to experiment in the development of abstraction for public space. In the early 1970s, Calder's historic ties to the field of architecture catalyzed a series of commissions which, by around the time of the 1973 Bruzeau article, began to produce unanticipated reconsiderations of how his work and self-conception could, in fact, be developed by collaborating with technological fabricators in distinctive new architectural interiors.

### **Conclusion: Honor and Interrogation in Calder's Final Public Commissions**

#### ***Untitled* (1976), National Gallery of Art, Washington D.C.**

The most significant opportunity for this experimentation had its basis in I.M. Pei's 1970 design for a radical, trapezoidal space-framed edifice as the new the home of the National Gallery of Art's Center for the Advanced Study of the Visual Arts. Pei's design for the new wing of the museum, now known simply as the East Wing, represented a development of the sort of sculptural architecture that he had been engaged

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<sup>63</sup> Prather, 292.

in for years, since developing the cruciform Place Ville Marie in Montreal.<sup>64</sup> It also incorporated a massive atrium, an architectural trope that had gained tremendous popularity in the United States in the prior decade, thanks in large part to the hotel designs of the architect John Portman.

Since the late 1960s, Portman had been developing bold structural hotels as centerpieces of major American cities, including Atlanta and San Francisco. The hotels Portman built for each of these cities boasted groundbreaking roof-high atriums and glass capsule elevators that glided up and down concrete shafts, presenting a spectacle to lobby dwellers and giving riders dramatic changing views of the massive interior space. In addition to the glass-encapsulated elevators, the atrium of Portman's Atlanta Hyatt boasted a revolving café and a "towering" fountain; in 1974, the fountain was replaced by a 120-foot tall Richard Lippold sculpture entitled *Flora Raris*. A 40-foot wire sculpture by Charles Perry (a height comparable to Calder's *La Grande Voile*) was a focal point of the atrium of his Embarcadero Hyatt, in San Francisco. [figs. 185-186] As the architecture critic for the *Los Angeles Times* pointed out, "by showing that these grand interior spaces can pull their weight economically, Portman is doing valuable missionary work for his colleagues as well as for himself."<sup>65</sup>

From an early point in the development of Pei's National Gallery, Brown planned to decorate it with commissioned and site-specific artwork, in the manner of Portman.

The architectural historian Victoria Newhouse and Neil Harris, a scholar of museum

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<sup>64</sup> Pei designed the J.F.K. Presidential Library, which had a 110-foot space-frame atrium, in the same period as the East Wing of the National Gallery. The contentious design process began in 1964 and the library was unveiled in 1979. It was "exactly the sort of monumental commission that had eluded Pei under Zeckendorf's aegis." Cannell, 160. One source of inspiration for the Library was a note "the late president had sent to an architect who was designing a federal building. It contained a single quote from Pericles, 'We do not imitate, for we are an example to others.'" *Ibid.*, 161.

<sup>65</sup> Pastier, John, "Two Bright Spots in the Changing Face of S.F.," *Los Angeles Times*, May 21, 1973, F1.

history, both explain that this aspiration was illustrative of the pivotal role that Brown played in interpreting contemporary American architecture and culture to revolutionize museum experience.<sup>66</sup> According to Newhouse, “both the atrium and its art were forerunners of the current promotion of bigness in museums – what the art historian and critic Hal Foster calls “the big rock” needed “to make a big splash in the global pond of spectacle culture today.”<sup>67</sup>

Brown viewed a work by Calder as central to these radical plans to commission prominent modernists for work to be permanently displayed in the vast, light-filled and dramatic atrium space. As archival records attest, the museum director’s interest seems to have been, from the start, in a piece that would echo the horizontal thrust of the space. Although Calder was interested in producing a work that would cantilever into the open space from the mezzanine, he agreed to produce the most sizable of the designs he had proposed, a large ceiling-suspended mobile.<sup>68</sup> In June 1973, the Gallery gave Calder a contract to enlarge his design, which had fourteen metal elements, painted in black, red and blue. The six red elements were variously sized triangular forms attached to interconnected rods. The black elements, in a variety of arrow-like shapes, dangled from rods. The sole blue, triangle-shaped element terminated the last of the rods that supported the black elements. [fig. 187]

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<sup>66</sup> Neil Harris, *Capital Culture: J. Carter Brown, the National Gallery of Art, and the Reinvention of the Museum Experience* (Chicago: University of Chicago Press, 2013), 151.

<sup>67</sup> Newhouse, in *A Modernist Museum in Perspective* (2009), 79.

<sup>68</sup> “Calder was first contacted by the Gallery in 1971, in the early stages of the building’s development. His first solution involved using *London*, a thirty-foot-wide red mobile he had made for his 1962 exhibition at the Tate Gallery, but the work was presumably deemed too small. He then apparently proposed a low-slung mobile, suspended from a steel base and designed to cantilever out in to the atrium of the museum [...] He wrote to David W. Scott, the planning consultant for the project, “I think I like better the object whose base was on the mezzanine [...] But never mind all that I will try to make this new object into a very good [work].” The new object to which he referred was the largest of the maquettes he submitted. Prather, 284.

Thanks to an indirect connection to Portman, Calder had already been at work on a mobile of even greater dimensions for nearly a year before receiving his contract from Brown. As of 1972, he had been working on an approximately 90-foot long mobile, projected to weigh 10 tons, for the atrium of the Federal Reserve Bank of Philadelphia, designed by the architect Pietro Belluschi, who had been inspired by Portman, and defended him in disputes about how his hulking buildings affected cityscapes, particularly that of San Francisco's Embarcadero district.<sup>69</sup> When Calder first began to design his commission for the Federal Reserve Bank in July 1972, he was wary of creating a single work for such a large space, out of fear that the upper elements would be rendered immobile. He suggested that Perls ask the architect whether a series of mobiles, perhaps one per floor, would be suitable. [fig. 188] However, the design that was ultimately approved for the Federal Reserve was a constellation of fourteen white aluminum discs and stainless steel rods suspended from a specially-designed motor, and by the time of Ted Morgan's 1973 visit to Calder's home in Saché and the Biémont foundry, the artist and his collaborators at the foundry were discussing the challenges that such a massive work proposed.

By February 1974, the National Gallery began to note several critical risks in its own massive mobile projects. Calder's team at Biémont had submitted their designs for a 30-fold enlargement of the approved maquette; as a result of these plans, the Gallery's project consultant David Scott wrote to Calder of his concerns that the mobile could bump the walls of the gallery, and, furthermore, that the big blades would be "imposing" "in the flesh." He suggested shrinking it by 20 to 30 percent, but also cautioned "the scale

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<sup>69</sup> Clausen, Meredith, *Pietro Belluschi: Modern American Architect*. (Cambridge, Mass.: MIT Press, 1999), 277.

and nature of the space pose a difficult problem if the mobile is to feel light but also hold up against the architectural elements – including the space frame.”<sup>70</sup>

Soon thereafter, Biémont submitted a plan for the final work that Scott felt “had shown a certain heaviness of character” and he determined that “drastic changes were needed.” He determined that it would be necessary to obtain an outside assessment as to whether Biémont was capable of offering the best possible full-scale realization, and enlisted the services of Paul Matisse, an artist and inventor in his own right who was the grandson of Henri Matisse and son of Calder’s former dealer Pierre Matisse. Matisse agreed to examine the feasibility of using lighter-weight honeycomb aluminum for the panels, to “save weight on the panels... [and] be able to use thinner arms to produce a finer full-scale piece.”<sup>71</sup>

Matisse’s admiration of the form and motion of Calder’s smaller-scale mobiles had a significant effect upon his approach to the enlargement of the National Gallery mobile, and the implications that the project would ultimately have upon Calder’s own self-perception.<sup>72</sup> During Matisse’s visit to Biémont, he had an extended talk with Calder and Jacques Bazillon, the foreman of Biémont who had overseen production of such significant pieces in Calder’s oeuvre as *La Grande Voile*, *Man* and *La Grande Vitesse*. Matisse found little willingness on Bazillon’s part to admit to the differences between his

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<sup>70</sup> Scott to Calder, February 20, 1974, Correspondence File, National Gallery of Art, 6 of 6, 1946, 1951, 1967-74, Perls Galleries records.

<sup>71</sup> Matisse to Scott, March 21, 1975, 1, “National Gallery of Art, 5 of 6, 1975,” Perls Galleries records.

<sup>72</sup> Brown to Calder, February 28, 1975, National Gallery of Art 5 of 6, 1975, Perls Galleries records. Matisse believed that, as Calder developed mobiles, he “cut away to get just the right weight, he coincidentally developed the plates’ visual form. The result was a plate of just the right weight in a true Calder shape. The rest of the object then grew naturally without the slightest need for mathematical calculation.” Matisse to Scott, March 21, 1975, “National Gallery of Art, 5 of 6, 1975,” Perls Galleries records.



design and Calder's maquette. He also obstinately refused to consider how a full-scale version of the maquette could benefit from the use of different, lighter-weight materials, to restore both mobility and the "unsettled, uneven visual stance" that Matisse asserted to be equally as important to the character of a mobile as its "ability to move."<sup>73</sup> By the end of Matisse's short visit to Saché and the Biémont factory, Calder requested that he oversee fabrication of the work in the United States, and sent the original maquette, wrapped "in newspapers like a bouquet of flowers," back to America in his care. Through an extensive series of calculations and tests of new materials ranging from aluminum used in aerospace application to industrial epoxy, Matisse tackled his self-appointed task of "develop[ing] a solution to the problem of fabricating a large and *authentic* [emphasis added] indoor Calder mobile."<sup>74</sup> [Figs 189-192]

The process of engineering the mobile for the East Gallery gave Calder new insight into the potential he had to influence the appearance, and public's perception of, a vast interior space. The artist had an opportunity to meet the Long Island engineer who fabricated the wings of the mobile out of honeycomb aluminum, and at one point spontaneously picked one up, which is likely to have convinced him of the mobile's likelihood to rotate spontaneously in the space, as Matisse had insisted that the new fabrication would permit.<sup>75</sup>

Matisse, writing about this visit to Perls, viewed it as a triumph. However, the feat would soon be overshadowed by a series of interactions that would cause him great and

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<sup>73</sup> Matisse to Scott, March 21, 1975, 4-5, "National Gallery of Art, 5 of 6, 1975," Perls Galleries records.

<sup>74</sup> Matisse to Scott, March 21, 1975, 12, "National Gallery of Art, 5 of 6, 1975," Perls Galleries records.

<sup>75</sup> This would have represented a milestone in Calder's production of monumental mobiles, as the graceful appearance of his handmade mobile arms had never been approximated in his prior large-scale interior mobiles, including his commission for Idlewild Airport, .125.

compelling anxiety. At a late date in the mobile's development, Calder requested that its elements be reoriented, so that they would be "precisely" horizontal or vertical. This request highlighted the irony of his insistence that his approach to scaling-up one of Calder's works would guarantee its "authenticity" as a mobile. Unlike the lightweight wire mobiles the artist had made throughout his life, the National Gallery mobile's engineering made such a modification a lengthy and expensive process (Matisse later estimated that fulfilling Calder's request to right the elements would cost at least \$4,000).<sup>76</sup> In the immediate aftermath of Calder's sudden death in November 1976, Matisse was wracked with anxiety as to what, precisely, the nature of his role was, as the steward of an enlargement process that he had billed as capable of guaranteeing an "authentic" enlargement of a Calder mobile, even while the effect of enlarging mobiles to such an extent had received little, if any, serious consideration by the artist, his collaborators and his commissioners.

As Matisse reported to Perls and Brown, he determined that he could honor Calder's "wishes," paradoxically, by reinterpreting them on the basis of his *own* experience of the only comparably large mobile that Calder had created in recent years, the 90-foot long, 10-ton *White Cascade* that had been produced for the Philadelphia Federal Reserve by Biémont in the same years that Matisse had helped develop the National Gallery mobile in the United States. [fig. 193] He wrote,

I fear... doing something that Sandy himself could not (and therefore would not) have done. When I was in Philadelphia two weeks ago, I studied the large mobile that they have very carefully – all of its twenty-five or so blades were 'substantially' horizontal or vertical; but they were certainly not precisely [sic] horizontal or vertical. As I watched it, I felt again, very strongly, that a mobile with perfectly vertical or horizontal planes would appear to be far more of an engineer's imitation of a Calder than an original...if we are

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<sup>76</sup> Matisse to Perls, November 19, 1976, Correspondence File "National Gallery of Art (4 of 6), 1976-1978, Perls Galleries records.

going to complete this major work in a way that is satisfyingly true to Sandy's spirit, it would be a grave mistake to be more accurate in the panel straightening process than he himself could or would have been. I would like to complete the mobile by straightening all of the panels almost [sic] to horizontal or vertical, but not quite. Each one would retain a gentle suggestion of the original irregularity that we all feel is an essential part of the life of a Calder mobile.<sup>77</sup>

*Untitled* was installed approximately one year after Calder's death. [fig. 194-195]

After the fact, Calder's dealer Perls and Scott, the consultant who had suggested that Matisse reengineer the mobile, exchanged congratulatory letters that expressed their happiness at having found, in Matisse, such an able interpreter of Calder's work. Perls went so far as to state that *Untitled* "will be Sandy's greatest legacy."<sup>78</sup> But it is imperative to consider Matisse's role, and his assertion that Calder could not truly have wished to forego advanced engineering that would imbue his largest work with a sense of artisanal "irregularity."

Matisse's conclusion seems to indicate that, at the end of his life, the tendencies and characteristics inherent to Calder's unparalleled development of immensely-scaled work for public space had a paradoxical outcome: his history of collaborating with architects and industrial workers, combined with his long-formed desire to significantly influence architectural space, led him to agree to collaborate on public works that were both amongst his largest to-date, but also developed out of his own purview and understanding.

Notably, Matisse's insistence that Calder did not understand the implications of his request to "right" the elements of the National Gallery mobile was not particularly new in the history of his approach to the artist's largest-scale work. Mild condescension

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<sup>77</sup> Matisse to Perls, November 29, 1976, in "National gallery of Art, 4 of 6, 1976-68," Perls Galleries records.

<sup>78</sup> Perls to Scott, July 25, 1978, in "National Gallery of Art (4 of 6)," 1976-1978, Perls Galleries records.

tinged with cynicism had, in fact, characterized Matisse and Perls' commentary on *White Cascade* at the Philadelphia Federal Reserve Bank and *Elements Demontables*, an additional monumental mobile fabricated by Biémont in the early 1970s for another space-framed atrium, the SOM-designed Fourth Financial Center, in Wichita, Kansas. The men had shared their low opinion of Biémont's fabrication of these works, and their heavy, ungraceful final forms.<sup>79</sup>

These paradoxes suggest that honorific commissions, and the tremendous resources of labor, materials and funds that they provided, had the effect of neutralizing, or possibly even misrepresenting the artist's vision and capabilities. However, in 1975, after Calder had the opportunity to touch the first piece of his work to be made with the high-tech hollow-core aluminum Matisse had suggested, the artist undertook a new and unexpected approach to what would be his final design for a public commission. The plans he made for this final project suggest that he had, in fact, been inspired by the National Gallery commission to reassert control over his largest-scale work, and to develop it in previously unforeseen ways.

***Mountains and Clouds (1985-86), Hart Senate Office Building, Washington, D.C.***

In 1975, Calder was approached by George White, the Architect of the Capitol, to submit a proposal for a major sculptural commission for the 10-story, 90 by 120 foot atrium of the Hart Senate Office Building, then under construction on Capitol Hill (a short distance from the National Gallery of Art in Washington D.C.). The design that Calder developed as a result of his conversation with White, wherein the architect

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<sup>79</sup> Perls to Matisse, September 22, 1975, in "National gallery of Art, 5 of 6, 1976-68," Perls Galleries records.

requested that he consider creating a monumental work unlike the others displayed in public space in many cities worldwide, seems to have demonstrated Calder's understanding of the benefits of the new, distinctly technological means of producing monumental-scale mobile elements that Matisse had introduced to him.<sup>80</sup> This work was not only Calder's first composition comprised of disparate stabile and mobile parts, but also, due to the immense scale of both the mobile and stabile elements, was the artist's first work that not only operated in, but truly dominated an architectural space. The base, one of Calder's largest stables, is comprised of intersecting triangular planes that Calder designed with the knowledge that they would occlude parts of the Hart Building and transform the experience of the building more than any prior stable had. Significantly, this effect was intentional; White reported that Calder had refused his suggestion to replace some of these planes with arches to better facilitate pedestrian traversal through the work.<sup>81</sup> [fig. 196]

The night after Calder and White agreed that the maquette for *Mountains and Clouds* was "final," the artist died in his sleep in the New York City home of his daughter Mary Rower. Because, at the time of his death, Calder's team at Segre Ironworks had already been engaged to produce the stabile portion of the work, and Matisse had agreed to assist in the development of the mobile "clouds," the artist's survivors concluded that it would be possible to develop the project posthumously.<sup>82</sup> Although White supported the idea, he eliminated the budget for the work at the end of the decade, in an effort to

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<sup>80</sup> George M. White, Report on the Project for the Hart Senate Office Building, May 17, 1983, Correspondence File, HSOB "Calder," Archives of the Curator of the Capitol, Washington, D.C.

<sup>81</sup> *Ibid.*

<sup>82</sup> Jean Lipman declined to participate, based on the fact that Calder died before approving an intermediate-scale model. Lipman to Ms. Ann Imelda Radice, April 9, 1983, Correspondence File, HSOB "Calder," Archives of the Curator of the Capitol, Washington, D.C.

curb overspending on the building. After a campaign led by Senator Nicholas Brady (R-NJ) raised the \$750,000 required to realize the work, Segre's Ironworks and Nelson Young, the engineer who produced Calder's National Gallery mobile under Matisse's supervision, began production on the full-scale work.

*Mountains and Clouds* was installed in the winter of 1985-86. The first step in this process was the completion of the mobile "clouds," made of the same aeronautical grade aluminum used for the National Gallery mobile. The largest cloud is 42.5 feet long - multiple times the size of the National Gallery mobile's panels (and the only mobile by Calder to surpass the size of the acoustical panels he designed in 1951 for the Aula Magna auditorium). It and the other "clouds" arrived in components and were assembled in the base of the Hart Building's atrium. When the "clouds" were completed, they were attached to one another.

After a two-man crew winched the five interconnected "clouds" to the top of the 90-foot tall space, the 39-ton stabile portion was bolted together and secured to a substructure custom-developed for it. [fig. 197] Its main elements are four enormous, slanted and intersecting triangles of 39 tons of matte-black painted steel. The bracing ribs that stretch across each of these triangular elements divide their surfaces into additional long, pointed triangles, and reinforce the sense that these massive steel objects are straining upwards, towards the "clouds" at the top of the 90-foot tall space.

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Because *Mountains and Clouds* was developed without Calder's input on the intermediate-scale maquette, a 1:5 scale model based on his original design and used to make final modifications prior to enlarging the work to its full size, it is not considered an

authentic Calder, and is described by the Calder Foundation as a work “after” one of his designs. However, when viewed in the context of the forms of experimental collaboration that this dissertation has examined, *Mountains and Clouds* emerges as, in many respects, a fitting capstone to Calder’s public art practice. The project’s backers were able to conceive of and realize it based on the strength of the collaborations that had been integral to developing Calder’s prior, immensely-scaled public art projects. The new relation to and interaction with architecture that *Mountains and Clouds* represented, in its size and domination of so much of the Hart Building’s atrium, also reflect how consistently Calder’s public art furthered overarching efforts to develop new and compelling interrelations between abstract work and public space.

When the enlargement of his design for *Mountains and Clouds* was installed, it transformed the experience of the Hart Building and made a compelling statement about the value of abstract art in civic society. It became not only the largest and most complex abstract sculpture based on a modernist design to be installed in public space, but also the only one of such a scale and ambition to remain accessible to the public. By contrast, numerous other large-scale forms of abstraction developed in the postmodernist era were removed from public space in the 1970s and 1980s. Examples include Daniel Buren’s *Peintre-sculpture* (1971), a 66 by 32-foot pin-striped banner that obscured views of the galleries of the Guggenheim Museum until other artists represented in the space demanded its removal, and Richard Serra’s infamous *Tilted Arc* (1981), a 72-ton, 120-foot long, 12-foot high gently curving wall of two-and-a-half-inch thick raw Cor-Ten steel that bisected Federal Plaza in New York City. Almost immediately after its installation the work prompted complaints about its effect on the enjoyment, safety and

cleanliness of the space. In March 1985, *Tilted Arc* was removed after a public hearing and jury organized by the General Services Administration, which had paid \$175,000 for the work in 1981.<sup>83</sup> [figs. 198-199]

A later example of the strength and complication of artists' late-century compulsion to develop immensely scaled abstractions is the minimalist Donald Judd's development of the Chinati compound in Marfa, Texas. [fig. 200] This museum was developed after the artist exiled himself to rural Texas and expanded his efforts from discrete pieces and groupings of sculpture into the realm of architecture, in an effort to develop a group of buildings that had once comprised an Army fort into an alternative to commonplace venues for the viewing of abstract art.

Like Judd's compound in Marfa and the infamous postmodernist sculptures that preceded it, *Mountains and Clouds* still prompts questions about the implications of interrelating massive-scale sculptures with architecture and public space. In the wake of a 2011 earthquake that seriously affected Washington, D.C., it was deemed necessary to perform a structural analysis into the integrity of the 4,000 lbs. of the sculpture's suspended "clouds." While a congressman hailing from Calder's home state of Connecticut was leading a charge to use the analysis as an opportunity to campaign for restoring the "integrity" of the sculpture by restoring the motor that originally agitated the "clouds," the prospect of reinvesting in the sculpture through a renovation also catalyzed

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<sup>83</sup> *Peintre-Sculpture* was intended as an institutional critique, and the protestations by fellow exhibitors that forced its removal became infamous as exposing the complicated stakes of displaying avant-garde work in a museum. The same questions were central to the debate over *Tilted Arc* in the 1980s; after it was removed from Foley Federal Plaza in Manhattan, the artist claimed it could not be displayed again, because removing the work from the site for which it had been designed was tantamount to destroying it.



a contrasting effort questioning the value of the commission's effect on public space *and* the democratic activities that the Hart Senate Office Building is intended to foster.<sup>84</sup>

The quick development of a debate over the value of restoring *Mountains and Clouds* so that its major elements interact as they were originally designed to illuminate how examining the extent and implications of collaboration in Calder's public art practice is not only critical for historians seeking to understand his career, but also for constituencies responsible for maintaining his public art. For this reason, and because it remains accessible to the viewing public, *Mountains and Clouds* emerges as a multifaceted monument to the critical dialogues about the civic function of abstract art that Calder participated in and helped shape throughout his career.

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<sup>84</sup> Senator Joe Manchin (D-W.Va) implied that a restoration was not only unwarranted by the fact that there were more "pressing questions" in the Capitol, but also because the sculpture was already considered by occupants of the building to be a drain on the democratic processes that took place there. He claimed that the piece was "known to 'make us all dizzy and crazy.'" Senator Orrin Hatch (R-Ut) stated that he liked the "huge thing," but could "live without" a restoration of the clouds' original function. Kristina Peterson, "Calder Sculpture Triggers Heavenly Debate in Washington," *Wall Street Journal*, December 25, 2014.

## Epilogue

This dissertation has demonstrated that experimental collaboration was fundamental to the development of Alexander Calder's unique abstract art for public space from the mid-1930s, soon after he embraced abstraction, to the end of his unparalleled career in 1976. Each chapter has focused on a major phase in his public art practice and the parallel symbiotic development of his critical collaborative and experimental efforts (and the debates they inspired) to revolutionize social and public spaces.

The first of these experiments grew from the radical activities of America's foremost patrons of European avant-garde and transatlantic culture in the mid-1930s. Calder's responsiveness to this group's ambitions and emphasis upon social performance as well as the modern spaces it developed paved the way for his collaboration in formative events in the history of MoMA in the late 1930s and thereafter. These events and actions put Calder's mobiles in compelling relationship to the museum's unique interior and exterior spaces. Collaboration with MoMA also served to introduce Calder to critical figures in the world of architecture, who exposed him to distinctive architecture and urbanism. Interaction with this group, often through long-distance partnerships, inspired Calder to design new works in additional experimental and occasionally long-distance partnerships throughout the 1950s. In the 1960s, Calder developed relationships with foundries that enabled him to create immensely scaled sculptures that changed perceptions of urban space. While there was great demand for his large-scale speculative creations, his habitual collaborative experimentation allowed his public commissions to

help shape contemporary architectural contexts. His practice also influenced postmodernist sculptors' efforts to relate to their work to public space, and vice-versa.

Significantly, many of the sculptures that Calder produced or loaned out for display in public space in the projects that I describe in the first three chapters of this dissertation either no longer exist or have been removed from their original sites. The majority of my study of these works was possible because of extensive dialogue and description about them in contemporary records such as correspondence, photographs, newspaper reports and press releases. Although a number of these works were removed from their original sites (particularly when they were developed for events such as World's Fairs and other outdoor exhibitions) the breadth of the records around these projects in the 1930s - 1950s nonetheless highlights how Calder's collaborations on projects and issues intrigued critics, leaders in the fields of art and architecture, and the public alike.

Although many important public works by Calder are now inaccessible or altered, his large-scale works from the 1960s and beyond, particularly his stabiles, are, by contrast, ubiquitous. He created 137 works with Etablissements Biémont, the foundry he first employed in 1962 after deciding to no longer limit himself to works 10-foot tall and smaller.<sup>1</sup> When Ted Morgan visited Calder's studio in Saché in 1973, he described watching the artist, then in his mid-seventies, working on a model for a stabile, and reported Calder's own description of the combined effects of his tireless production of large-scale work and its popularity amongst corporate clients:

Calder was working on an aluminum model for a stabile, cutting the strips of metal with shears, punching holes for bolts, placing the shaped piece in a vise between blocks of

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<sup>1</sup> Prather, 281.

wood and filing the edges smooth, bending one side so it could be bolted to the rest. He made it look so easy.

“Who’s this for?” I asked.

“That’s without intent,” he said “I just keep making them [...]”

He pointed to another model stabile and said, “That’s going to a supermarket. I hate the idea of supermarkets, but I’ve sold more to them than anyone else.”<sup>2</sup>

History has borne out that this aspect of Calder’s approach to his largest work was a double-edged sword. His well-developed compulsion to create affected his legacy. Stephanie Barron identified the “widespread popularity” of Calder’s sculpture for public space in the 1960s and 1970s as the single greatest obstacle to understanding his “fundamental contribution to modern sculpture,” and quoted the painter Carroll Dunham’s description of how the sheer ubiquity of his work in public space conjures up a sense of “generic modernity[...] almost a *New Yorker*-cartoon version of biomorphic abstract art.”<sup>3</sup>

Calder’s focus on public art commissions also seems to have prevented him from a form of engagement with the public that many of his closest peers and competitors pursued in the 1960s and 1970s. Development of a museum or public space of his own, for example, might have curtailed the damage to his reputation and legacy. In the late 1960s and early 1970s Joan Miró developed his eponymous foundation in Barcelona, and collaborated with Josep Lluís Sert upon its building. The Art Gallery of Ontario’s Henry Moore Sculpture Centre opened in 1974, as the result of Moore’s gift to the gallery of 101 sculptures, 57 drawings and a complete set of his prints. Moore also designed several aspects of Centre.<sup>4</sup> In 1985, Noguchi opened his own 24,000 square foot Isamu Noguchi

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<sup>2</sup> Morgan, 37

<sup>3</sup> Barron, 11.

<sup>4</sup> Sarah Stanners, “Adopting Moore and Modernity in Toronto: Controversy, Reputation and Intervention on Display.” *Sculpture and the Museum*, ed. Christopher R. Marshall (Farnham, Surrey, England: Ashgate, 2011), 73-94.

Garden Museum on Long Island City.<sup>5</sup> Calder, by contrast, simply continued producing public work; in the last 12 months of his life, major commissions were installed in Philadelphia, Paris and Jerusalem, in addition to the two that he developed for Washington D.C., as described in Chapter Four.

Was Calder's neglect to design his own museum an oversight or a conscious decision with regards to his legacy? How should it affect our understanding of how he wanted his work to function in urban space, and its relation to contemporary audiences? Throughout this dissertation, I have sought to demonstrate that Calder, to borrow the words of Krauss, produced and thought about "sculpture in the expanded field."<sup>6</sup> Through collaborations with critical figures in the development of modern space and culture, he constantly undertook to adapt his sculpture to new contexts. New solutions frequently became platforms for new exploration. His innovations grew in popularity and scale to the point that he ultimately came to be perceived as worthy of not only placing his work in public space, but making it into an architecturally-scaled form of public space in its own right. All of this success and attention was bound up in Calder's attraction to interpreting and helping others to develop their ideas and designs. For this reason, it does not strike me as surprising that he was not inspired by the idea of creating a museum focused solely upon his *oeuvre*.

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<sup>5</sup> Grace Glueck, "Noguchi and His Dream Museum," *New York Times*, May 10, 1985, C1.

<sup>6</sup> Krauss, "Sculpture in the Expanded Field," 37.

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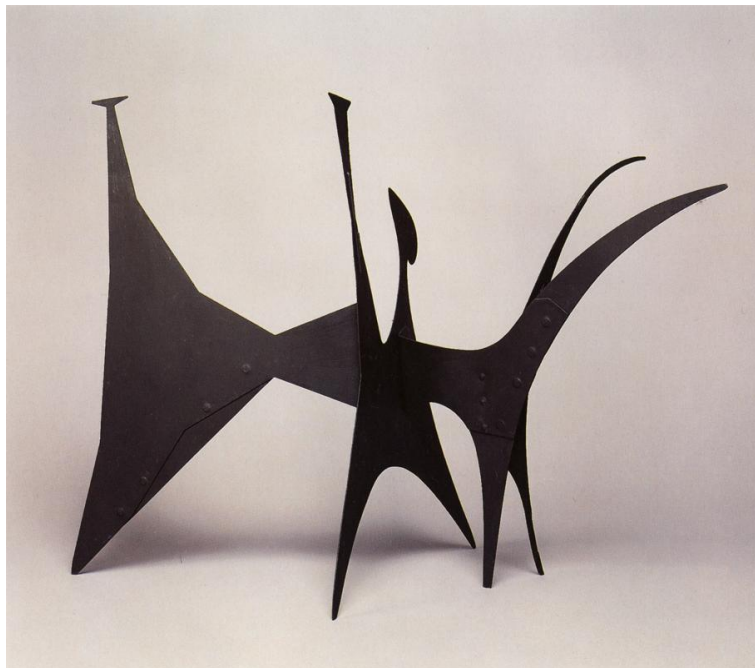
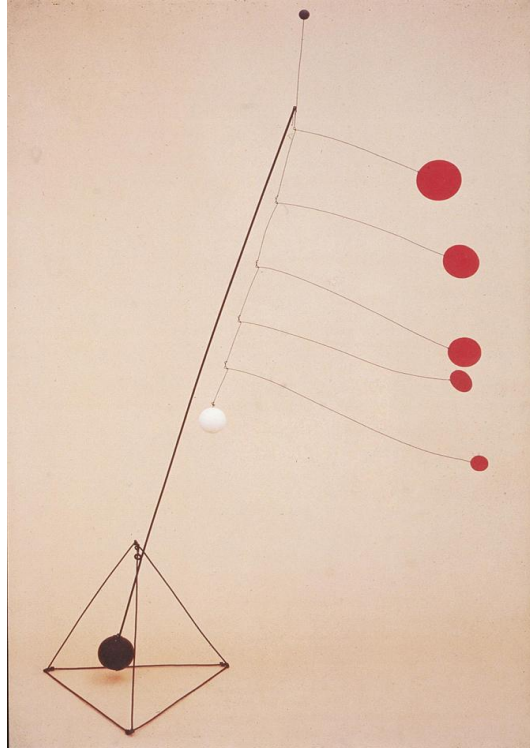
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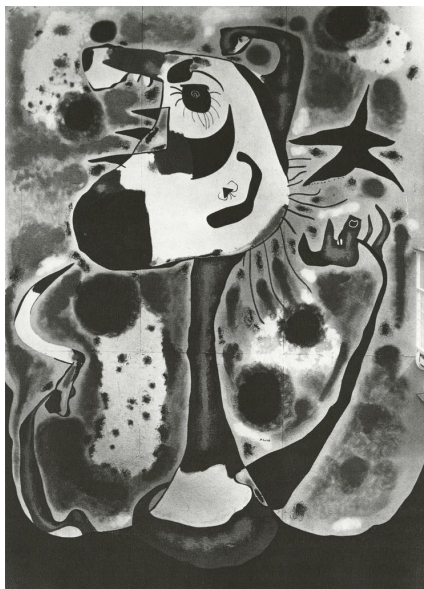


Figs. 1-2: Alexander Calder, *La Grande Vitesse*, 1969.  
Grand Rapids, Michigan.



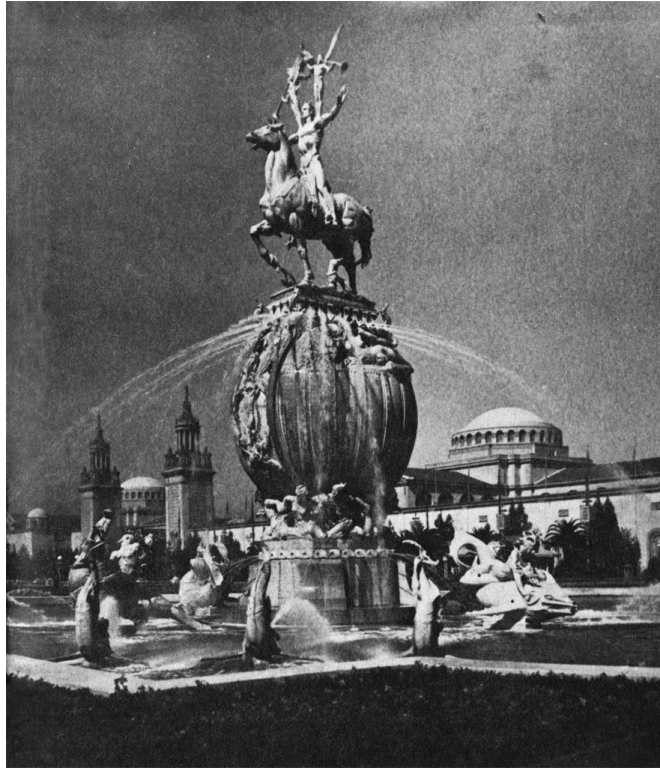
Figs.3-4: Calder, *Object with Red Discs* ("Calderberry Bush"), 1932. Whitney Museum of American Art.

Calder, *Black Beast* (maquette), 1940. Calder Foundation, New York.



Figs 5a-5b: Hugo Herdeg, Calder with *Mercury Fountain*, Spanish Pavilion, 1937. Calder Foundation, New York.

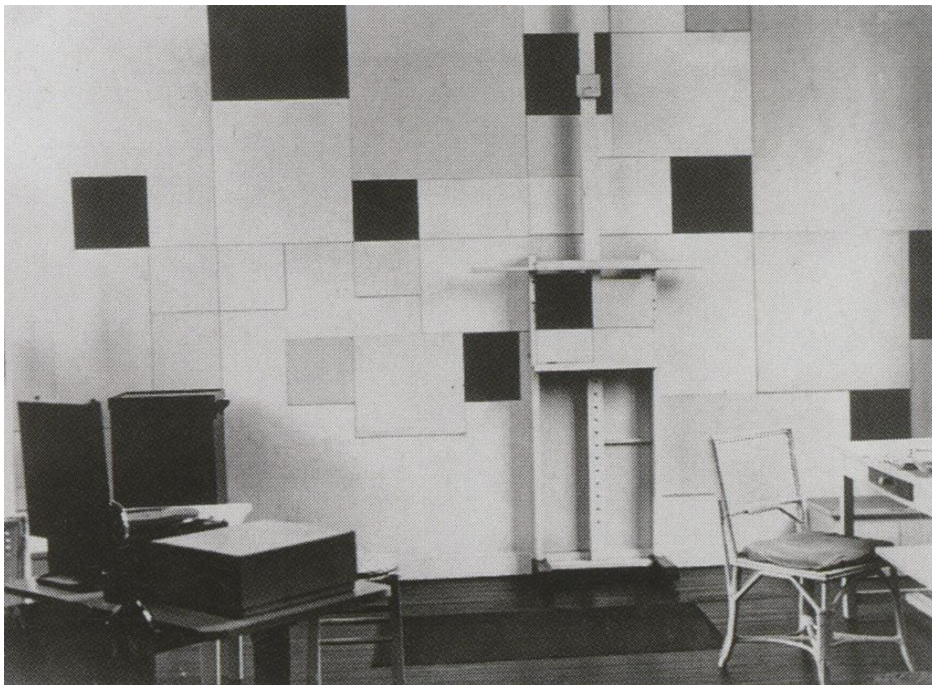
Joan Miró, *The Reaper (Catalan Peasant in Revolt)*. Destroyed. Fundació Joan Miró, Barcelona.



Figs. 6-7: Alexander Stirling Calder, Fountain of Energy, Panama Pacific Exposition, 1915. Destroyed. *Three Alexander Calders: A Family Memoir* (Middlebury, VT: Paul S. Eriksson, 1977)

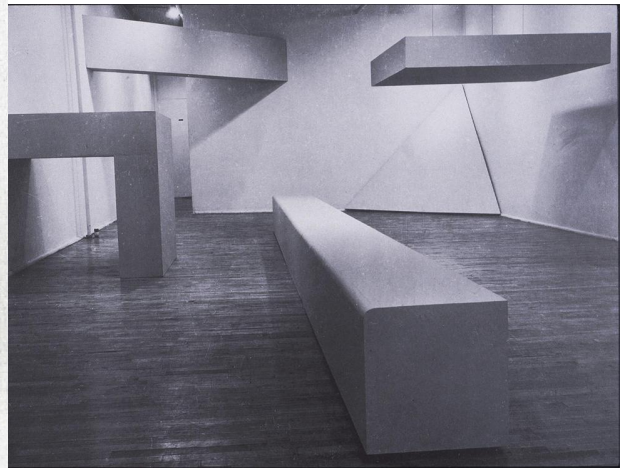
Alexander Stirling Calder, Swann Memorial Fountain, c. 1924. Philadelphia.





Figs. 8-9: André Kertész, Calder's Miniature Circus, Paris, 1929.

Michel Seuphor, Studio of Piet Mondrian at 26 Rue de Départ, Paris, c. 1930. Netherlands Institute for Art History, The Hague.



Figs 10-12: Alexander Milne Calder, Sculptural Program, Philadelphia City Hall (1873-1893).

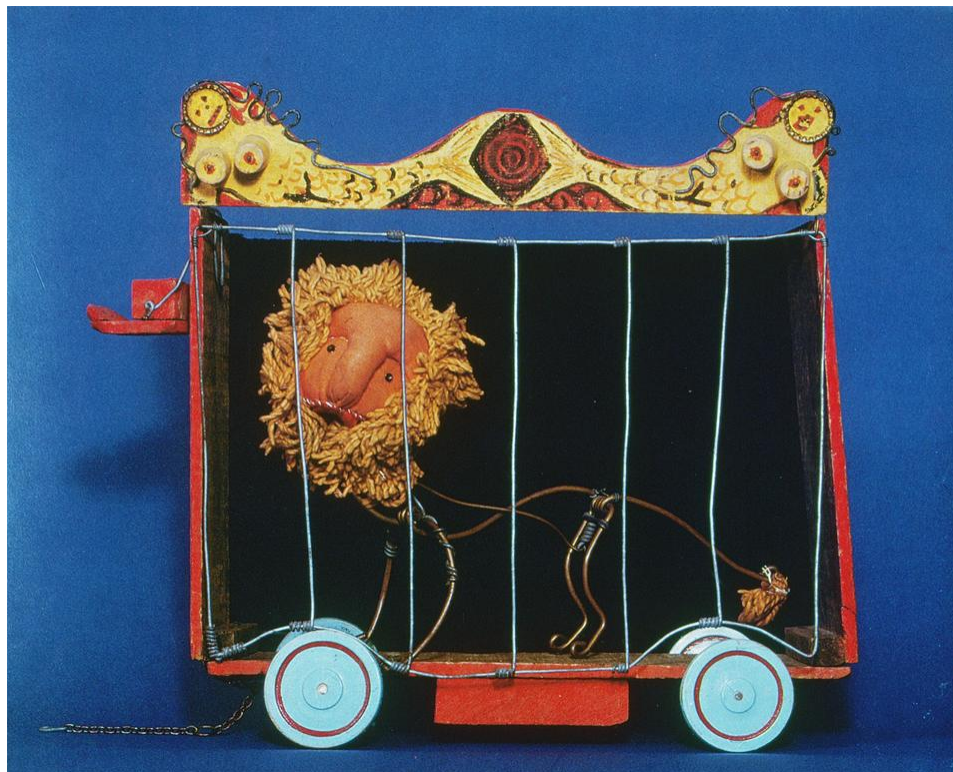
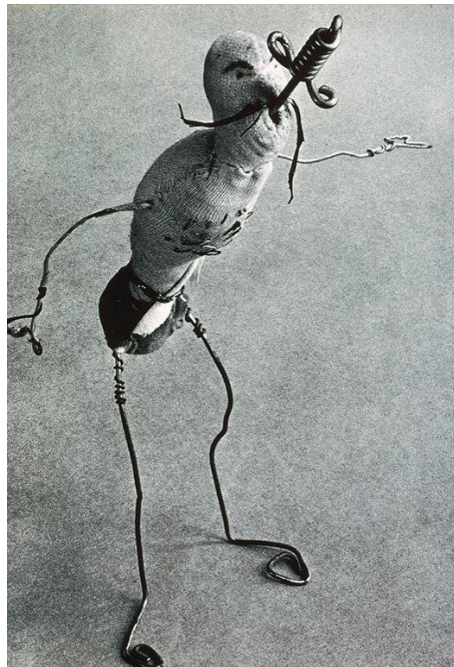
Installation Photograph, Robert Morris Exhibition, Green Gallery, New York, 1964.

Robert Smithson, *Spiral Jetty*, 1970, Great Salt Lake, Utah.





Figs. 13-14: John Sloan, *The City From Greenwich Village*, 1922. National Gallery of Art.  
 Calder, *Circus Scene*, 1926. Berkeley Art Museum.

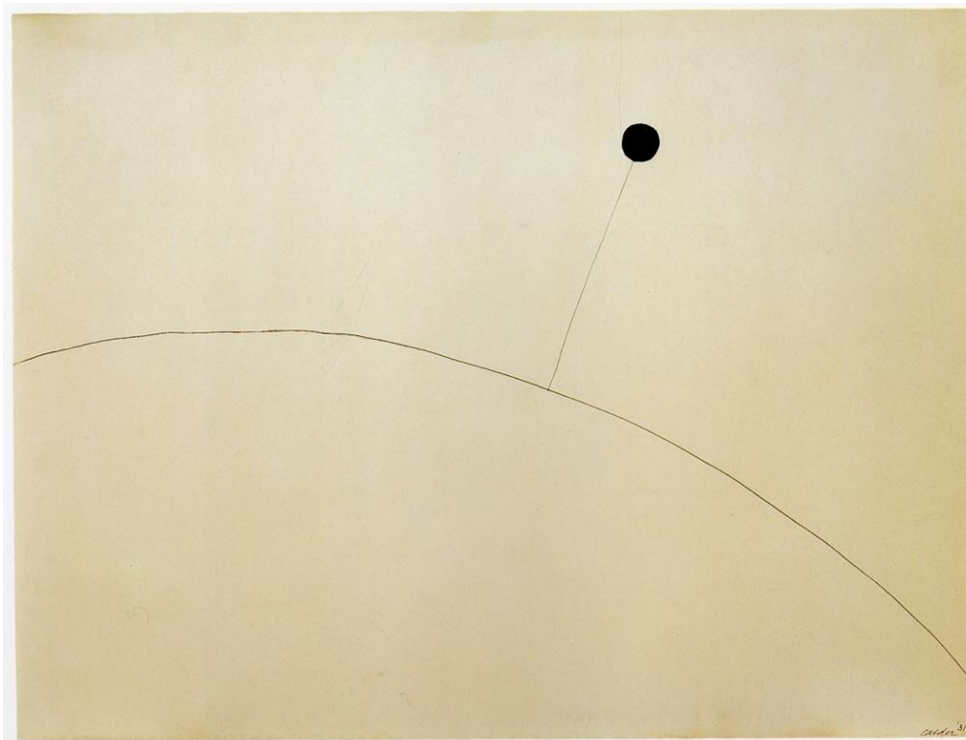


Figs. 15-16

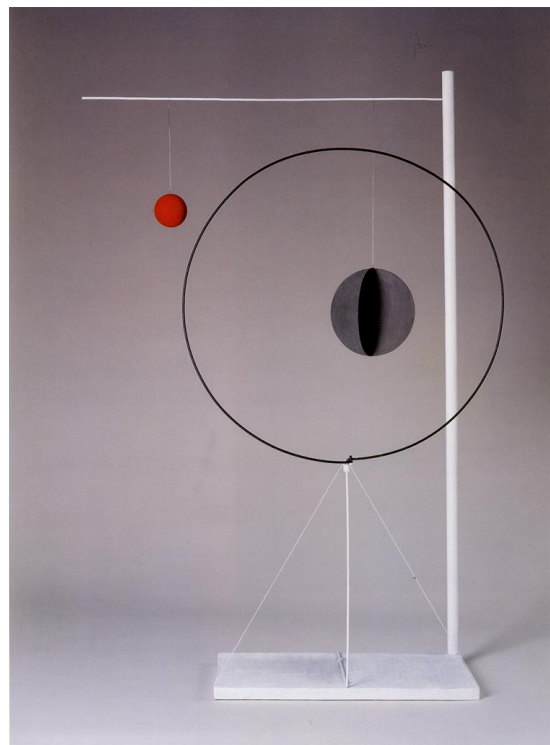
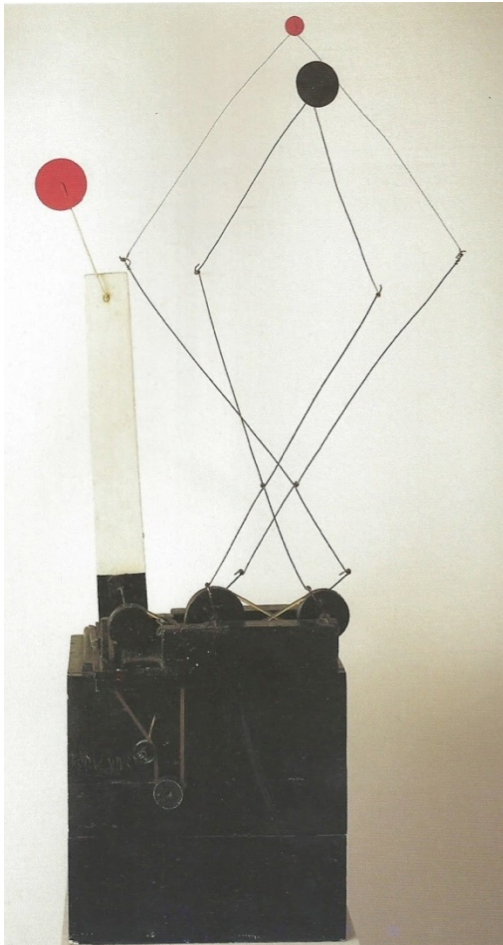
Calder, *The Sword Swallower*, 1926-31. Whitney Museum of American Art.

Calder, *Lion and Cage*, 1926-31. Whitney Museum of American Art.

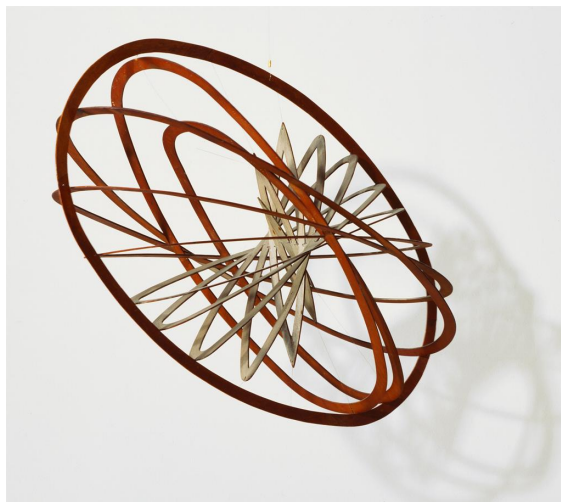
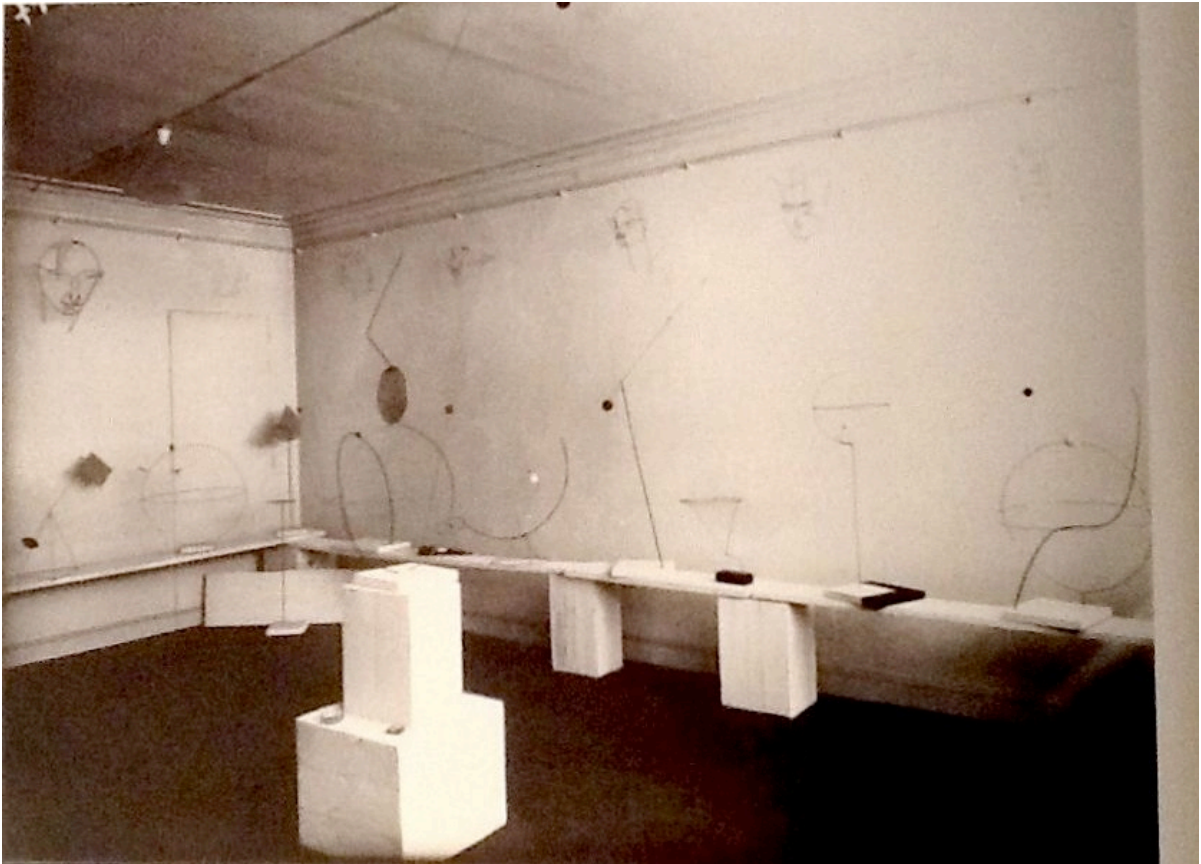




Figs. 17-18: Elizabeth "Babe" Hawes and Her Wire Portrait,  
 (still from "Sculptor Discards Clay"), 1928.  
 Calder, *Up, Over the Horizon*, 1931. Hirshhorn Museum and Sculpture Garden.



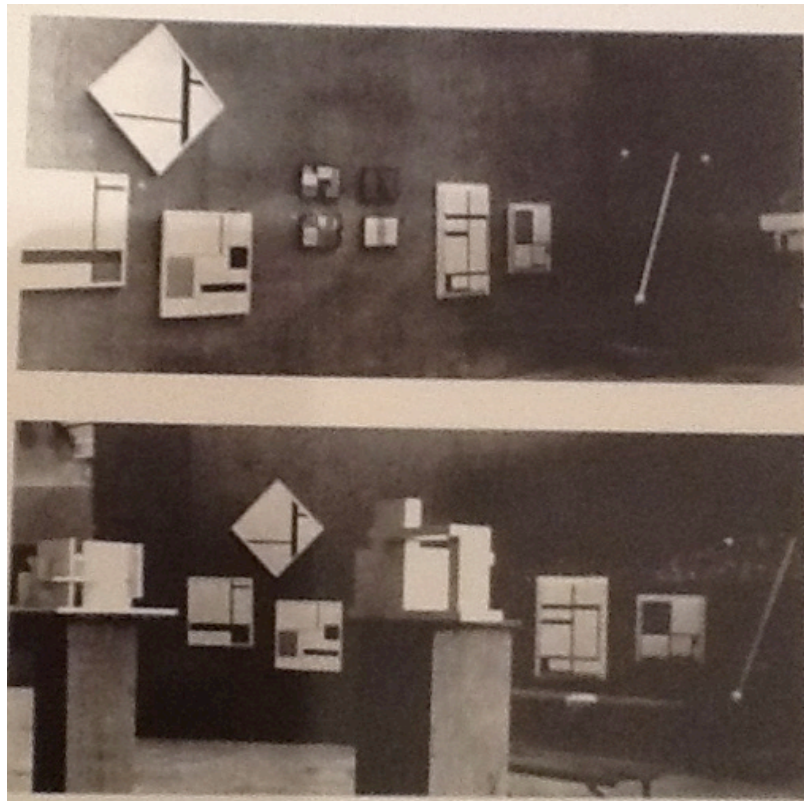
Figs. 19-20:  
 Calder, *Pantograph*, motorized mobile, 1931. Moderna Museet, Stockholm.  
 Calder, *Object with Red Ball*, suspended mobile, 1931. Private Collection.



Figs. 21-22: Marc Vaux, Installation View of *Alexandre Calder: Volumes-Vecteurs-Densités:Dessins-Portraits*, 1931, Galerie Percier, Paris.

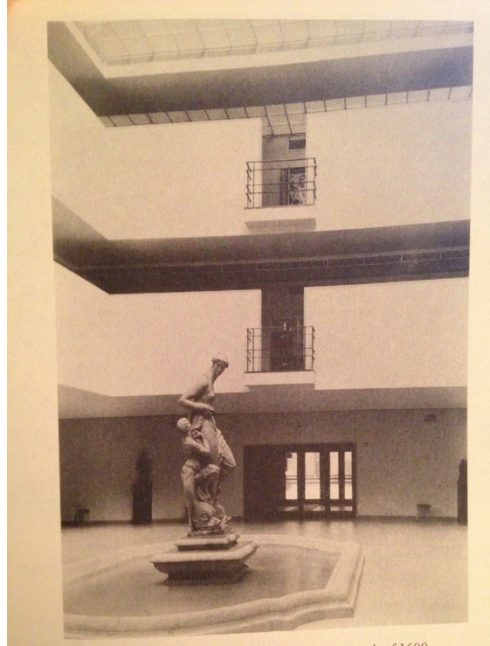
Aleksander Rodchenko, *Spatial Hanging Construction*, c. 1920.





Figs. 23-24: Vladimir Tatlin, *Model for the Monument to the Third International*, 1919-1920.

Exhibition Organized by the Association '1940,' Parc des Expositions, Porte de Versailles, Paris, 1932.



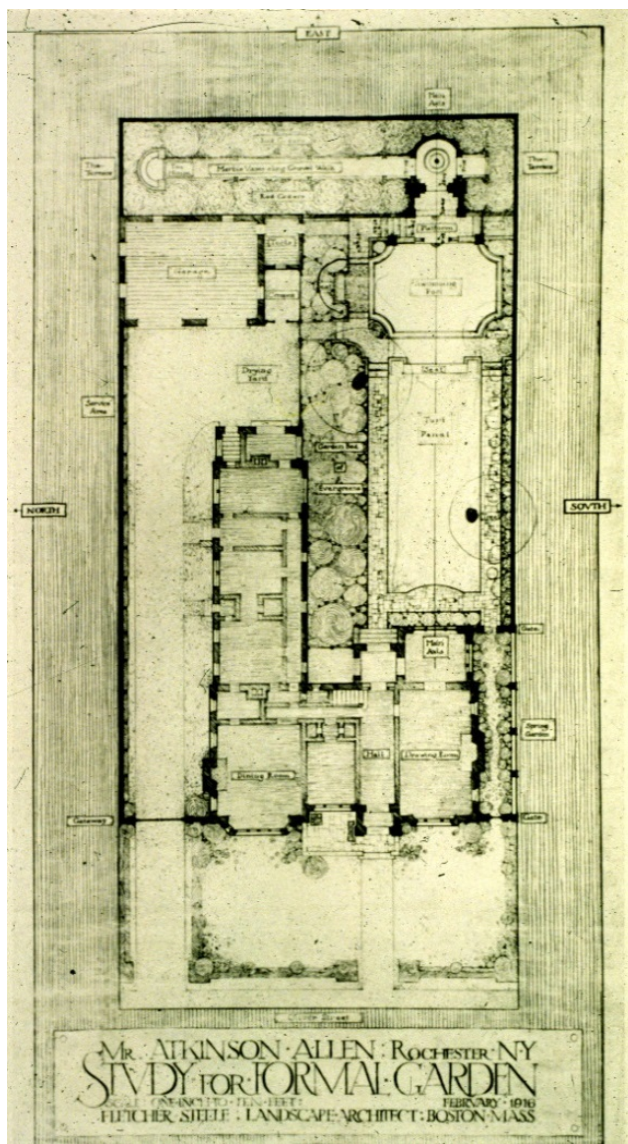
Figs. 25-26: Interior Court, Avery Memorial Building, Wadsworth Athenaeum, 1934.

Larry Qualls, Photograph of Virgil Thomson and Gertrude Stein's  
*Four Saints in Three Acts*, 1934.



Fig. 27: Calder, *Small Sphere Heavy Sphere*, 1932-33. Calder Foundation, New York.





Figs. 28-29: Fletcher Steele, Plan for the Allen Garden, 1916. SUNY ESF Archives.

Kathleen McEnery, *Woman Seated* (Charlotte Whitney Allen), n.d.  
Rochester Institute of Technology.

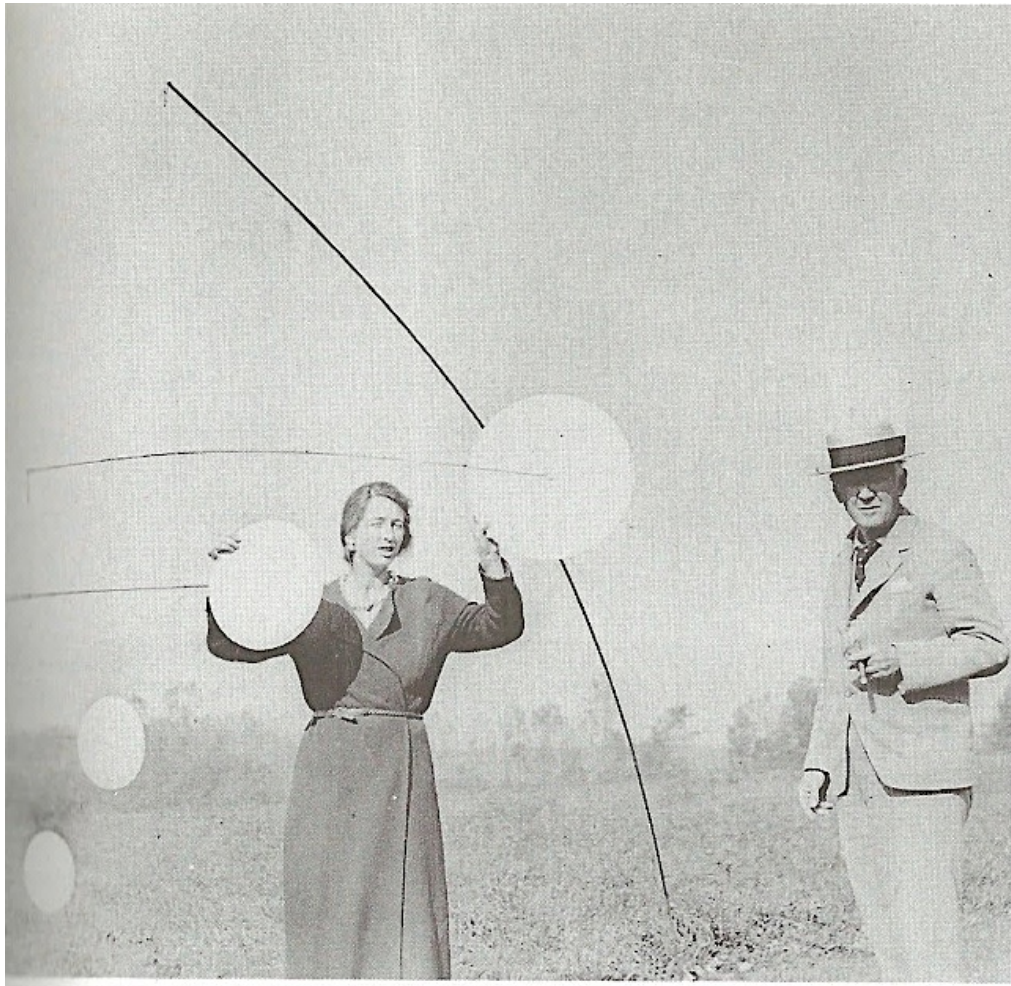
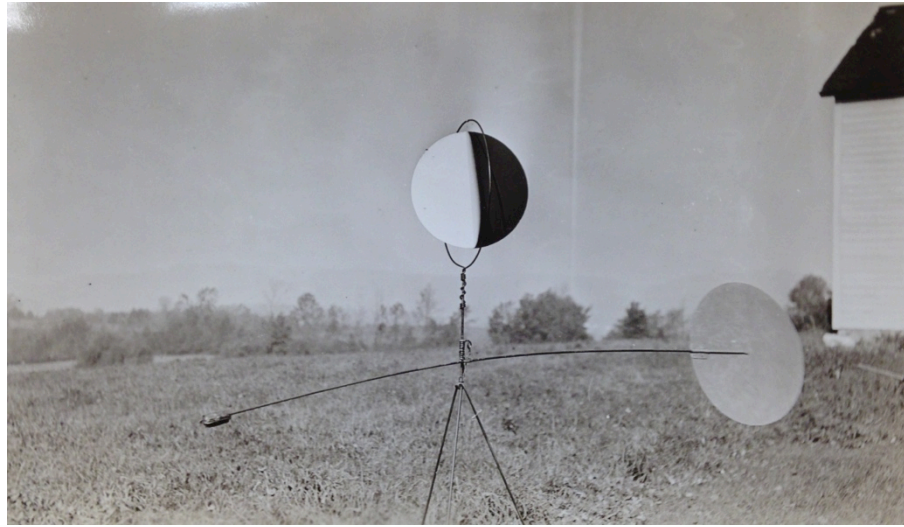


Fig. 30: Photograph of a Calder Mobile. Fletcher Steele Archive, Library of Congress.



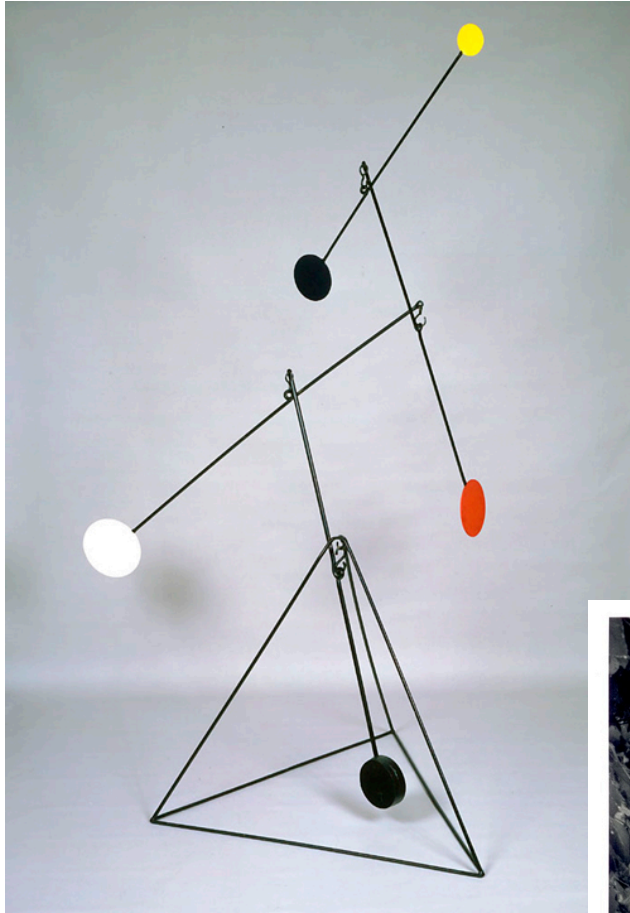


Figs. 31-32: Photographs of Calder Mobile (*Red and Yellow Vane*, 1934).  
Fletcher Steele Archive, Library of Congress.



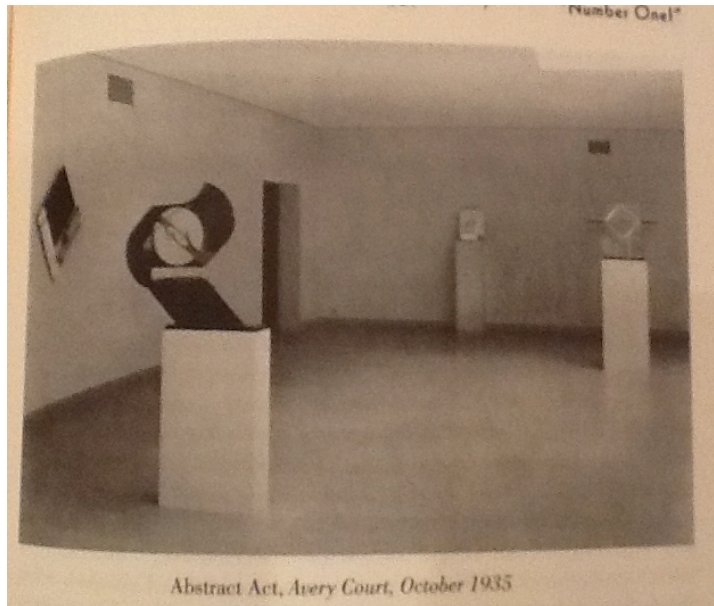
Figs. 33-34: Gaston Lachaise, *Fountain Figure*, 1927, Allen Residence, Rochester, NY.  
Memorial Art Gallery, University of Rochester.





Figs. 35-36: Calder, *Untitled* (Mobile for Charlotte Whitney Allen), 1935. Memorial Art Gallery, University of Rochester.

Mobile at Allen Residence, n.d. Memorial Art Gallery, University of Rochester.



Figs. 37-38: *Abstract Art* Exhibition, Wadsworth Atheneum, Hartford, Connecticut, 1935.

Mock Mobile, Soby Residence, Farmington, Connecticut, 1936. Museum of Modern Art Archives, James Thrall Soby Papers.



Fig. 39: James Thrall Soby, Calder Constructing *Wellsweep*, 1936. Museum of Modern Art Archives, James Thrall Soby Papers.



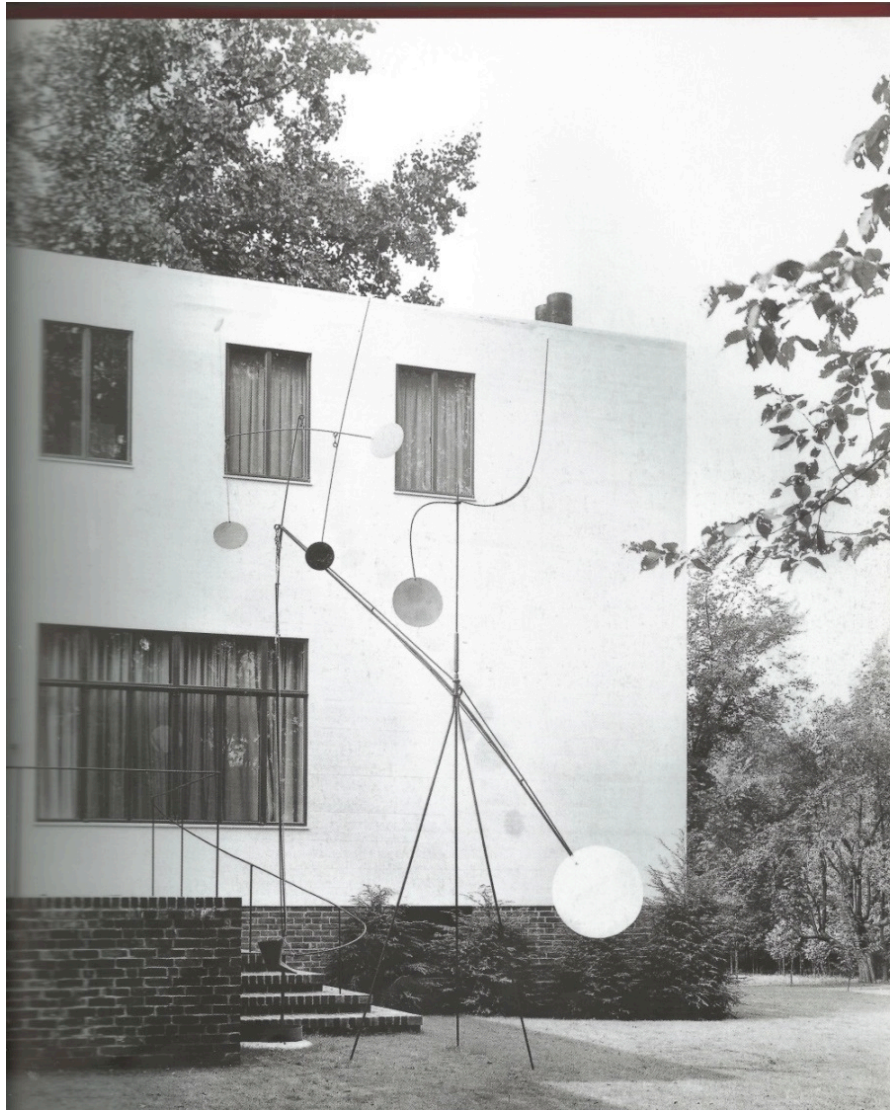


Fig. 40: James Thrall Soby, View of *Wellsweep* at Soby's Farmington Home, 1936.  
Wadsworth Atheneum Archives.



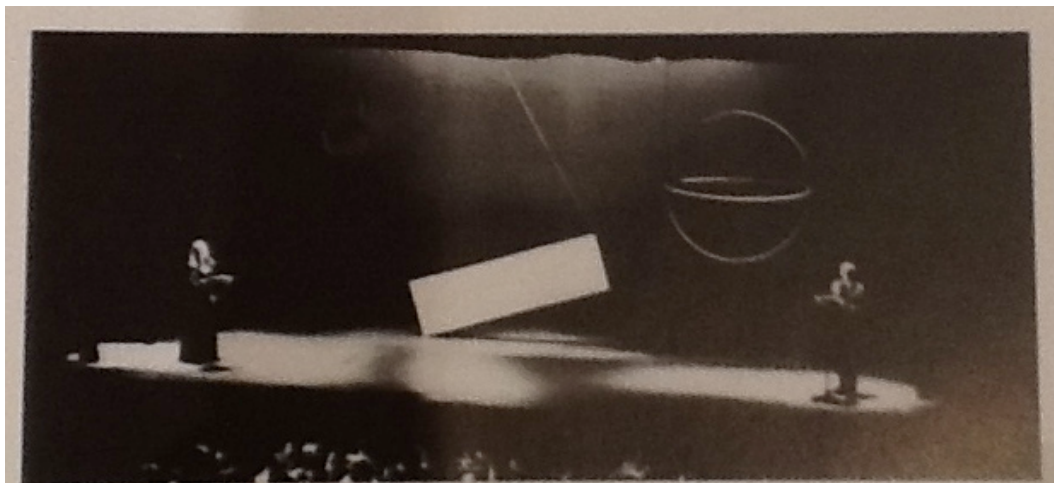
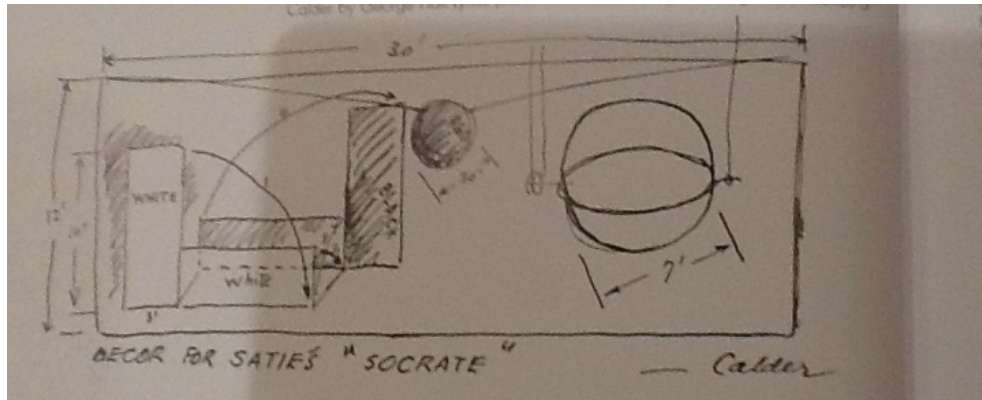


Figs. 41-42: James Thrall Soby, *Wellsweep at Night with Calder, Berman, and Friend*, 1936.  
Museum of Modern Art Archives, James Thrall Soby Papers.



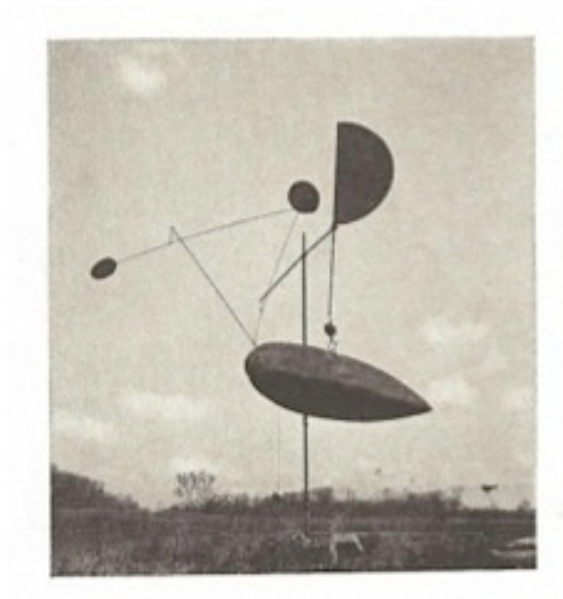
Figs. 43-44: Paper Ball, Wadsworth Atheneum, 1936. Wadsworth Atheneum Archives.

Film Still, Calder's *Nightmare Slide Show* Costumes, Paper Ball, 1936. Atheneum Archives.



Figs. 45-46: Calder, Preliminary Drawing for *Socrate*, 1936. Wadsworth Atheneum Archives.

Revival of *Socrate*, Beacon Theatre, New York, 1977.



Figs. 47-48: Herbert Matter, Calder's *Steel Fish* (1934), Roxbury, Connecticut, 1938.  
Calder Foundation, New York.





Figs. 49-50: Soichi Sunami, *Museum of Modern Art During Cubism and Abstract Art*, 1936.  
Museum of Modern Art Archives, New York.



Fig. 51: Walter Gropius, Bauhaus, Dessau, 1925-26.



Fig. 52: Spanish Pavilion, Paris Exposition Internationale, 1937.



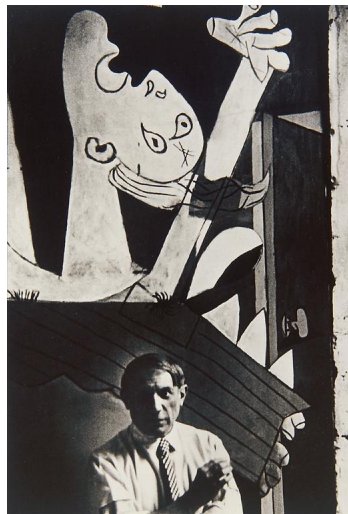
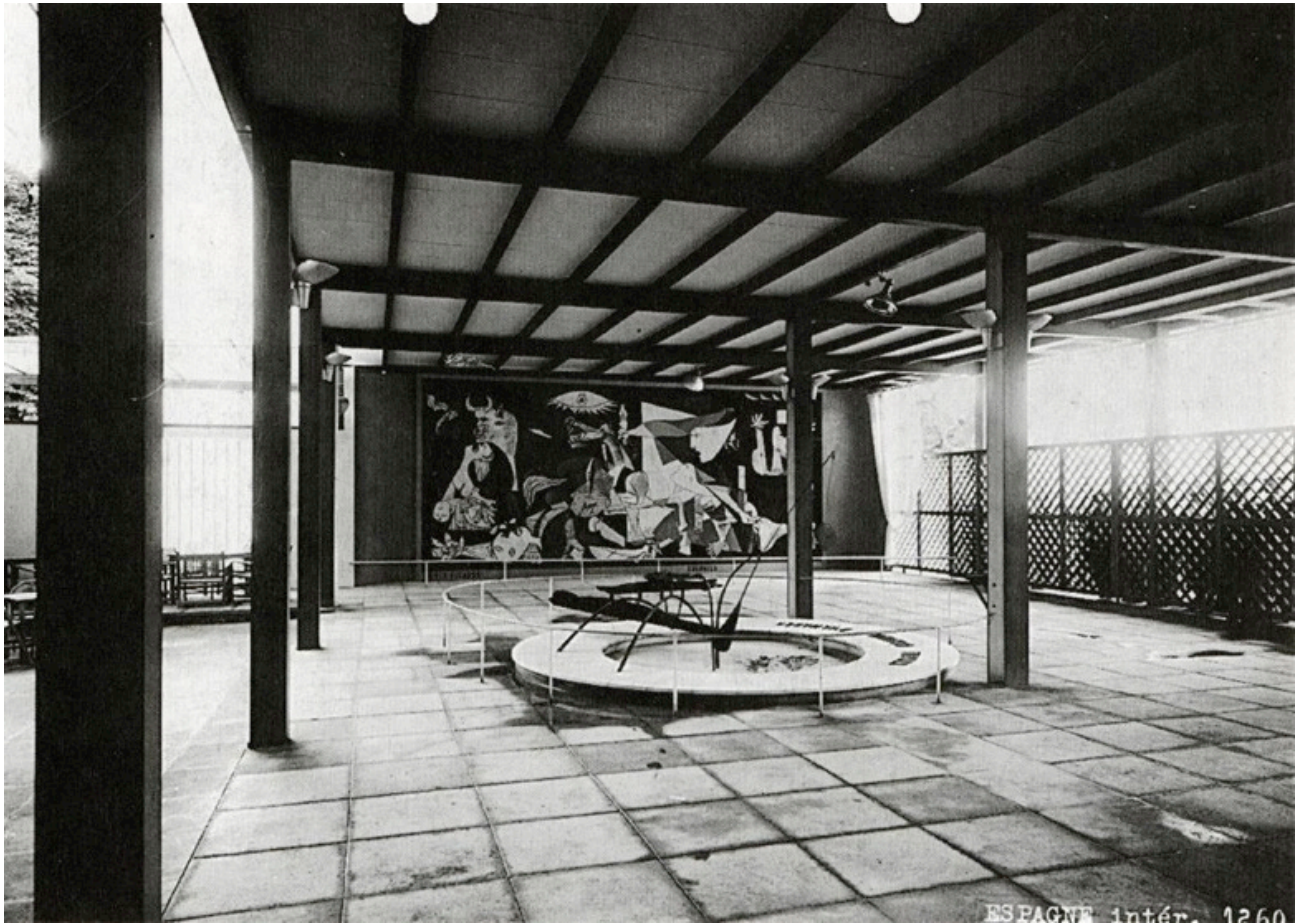
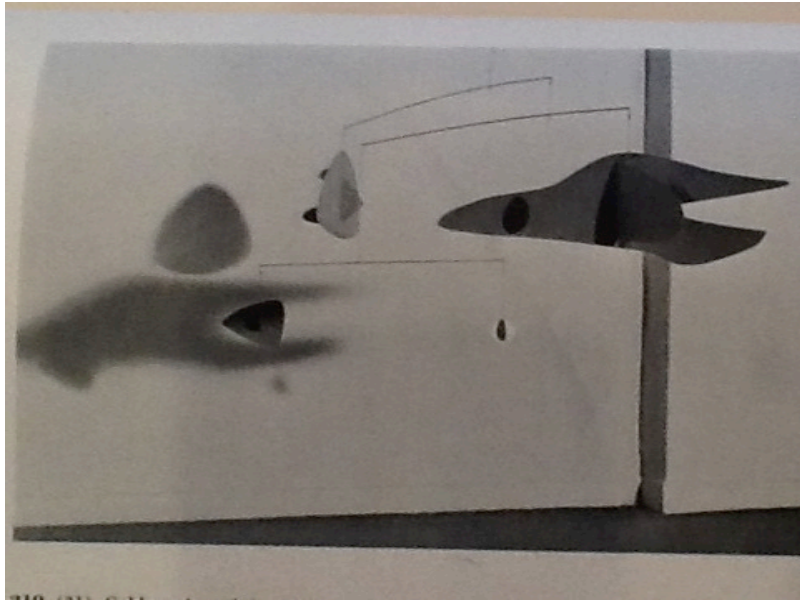


Fig. 53: Picasso, *Guernica* and Calder, *Mercury Fountain*, Spanish Pavilion, 1937.  
 detail: Picasso with *Guernica*. Minneapolis Institute of Arts.





Fig. 54: Paris Exposition Internationale, 1937.

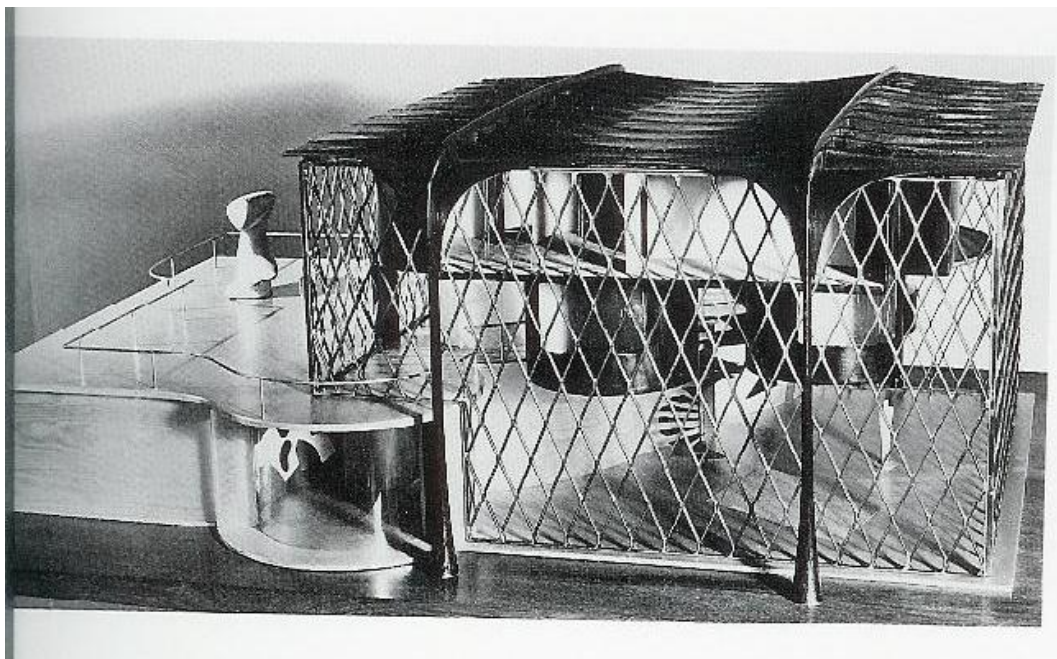
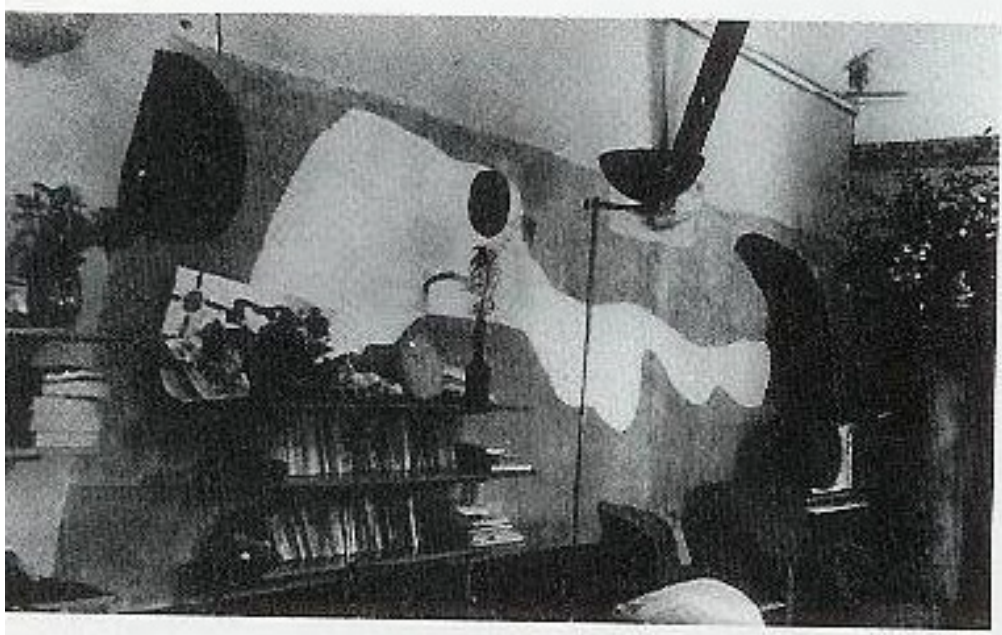


Figs. 55-56: Calder, *Untitled*, 1936. *Cubism and Abstract Art* (New York: Museum of Modern Art, 1936).

Calder, *Snake and the Cross*, 1936. Private Collection, New York.



Fig. 57: Installation Photograph, *Cubism and Abstract Art*, MoMA, 1936.



Figs. 58-59: Joan Miró, Murals in Nelson Home, Vareneville, 1938.  
*Filter of Reason: The Work of Paul Nelson* (New York: Columbia University, 1990).

Hugo P. Herdeg, Photograph of First Model of *Maison suspendue*, 1936-38. MoMA.



Fig. 60: Nelson, Second Model of *Maison suspendue*, 1936-38. MoMA.





Figs. 61-62: *Mercury Fountain*, 1937, *Mercury Fountain*, 1937, Fundació Joan Miró, Barcelona.

Hugo P. Herdeg, Calder and *Mercury Fountain*, 1937. Calder Foundation, New York.



Figs. 63-64: Louisa Calder, Aino Aalto, Cordelia Sargent Pond, Katherine Dreier, Sigfried Giedion, Alvar Aalto, Alexander Calder and Fernand Léger at the opening of the Calder exhibition at the George Walter Vincent Smith Art Gallery, Springfield, Mass., 1938. Calder Foundation, New York.

Eugène Beaudoin, Illustration of Light and Sound Show on the Trocadero, Paris Exposition Internationale, 1937. Académie d'architecture/ Cité de l'architecture et du patrimoine / Archives d'architecture du Xxe siècle, Marcel Lods collection.



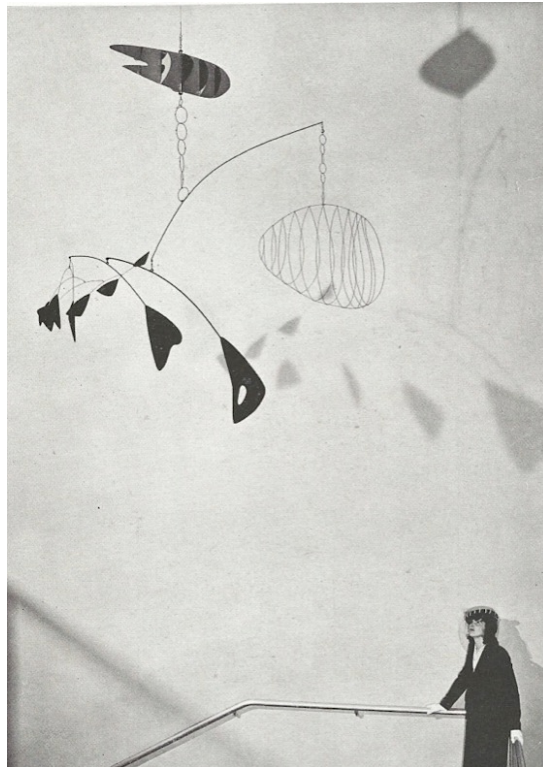


Fig. 65: Philip Goodwin and Edward Durell Stone, Museum of Modern Art, New York, 1939.





Figs. 66-67: Stairwell of the Goodwin-Stone Building, Museum of Modern Art, 1939.

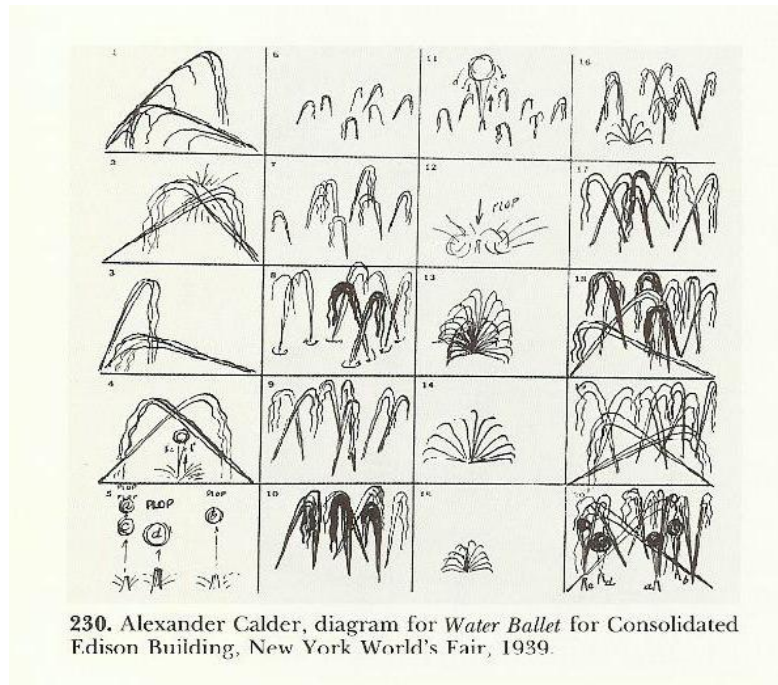


Figs. 68-69: Calder, *Lobster Trap and Fish Tail*, 1939. MoMA.



Figs. 70-71: Herbert Matter, Calder's New York Storefront Studio, 1936. Calder Foundation, New York.





Figs. 72-73: Calder, *Water Ballet*, 1939. *Theatre Arts Monthly*, vol. 23, no. 8 (August 1939).

Wallace K. Harrison, Consolidated Edison Pavilion and *Trylon and Perisphere*, New York World's Fair, 1939-40. Museum of the City of New York.



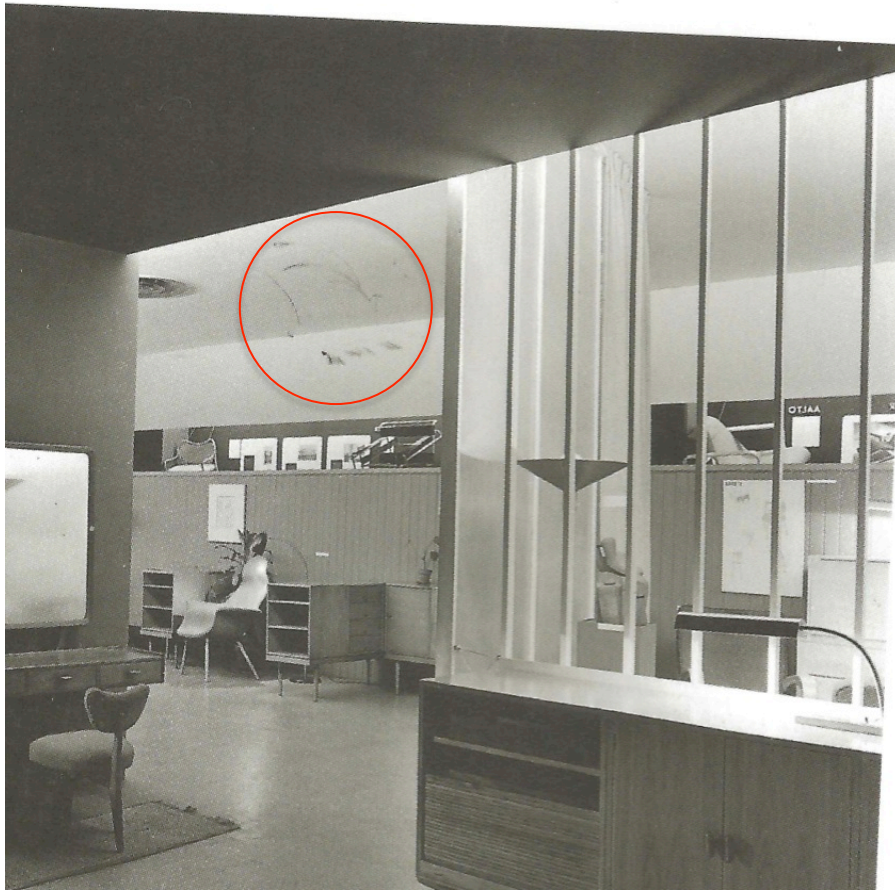
Figs. 74-75: Installation Photograph, *Useful Objects of American Design Under \$10*, MoMA, 1942.

Installation Photograph, *Organic Design in Home Furnishings*, MoMA, 1941



Fig. 76: Installation Photograph, *Organic Design in Home Furnishings*, MoMA, 1941.





Figs. 77-78: *Organic Design in Home Furnishings*, MoMA, 1941.

Frederick Kiesler, *Art of This Century*, New York, 1942-45.



Figs. 79-80: Installation Photograph, Calder Mobile for a Martha Graham Production in the MoMA Sculpture Garden During *Alexander Calder*, MoMA, 1943-44.

Calder, Sweeney, Tanguy and Mondrian at *Alexander Calder*, MoMA, 1943-44. Calder Foundation, New York.



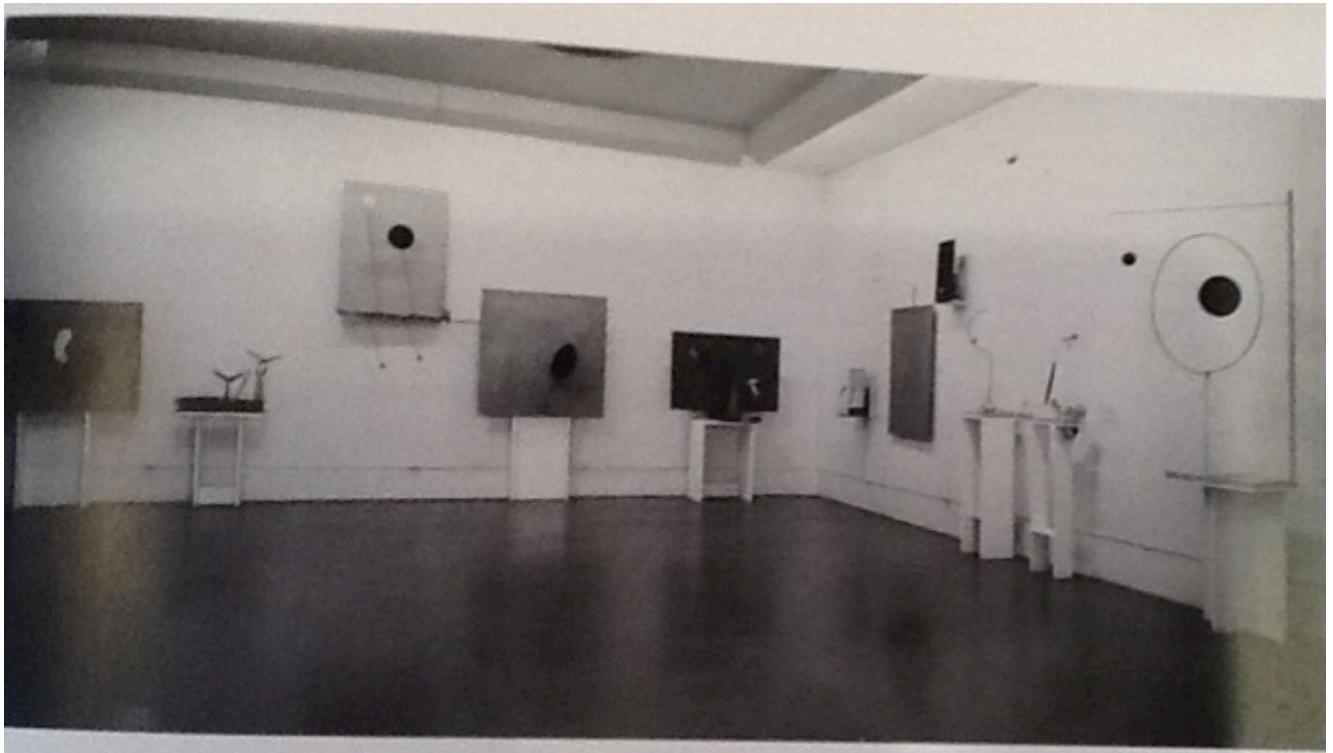


Fig. 81: Installation Photograph, *Alexander Calder*, MoMA, 1943-44.



Fig. 82: *Steel Fish* (1934) in MoMA Sculpture Garden during *Art in Our Time*. *Bulletin of the Museum of Modern Art, New York, 1939.*

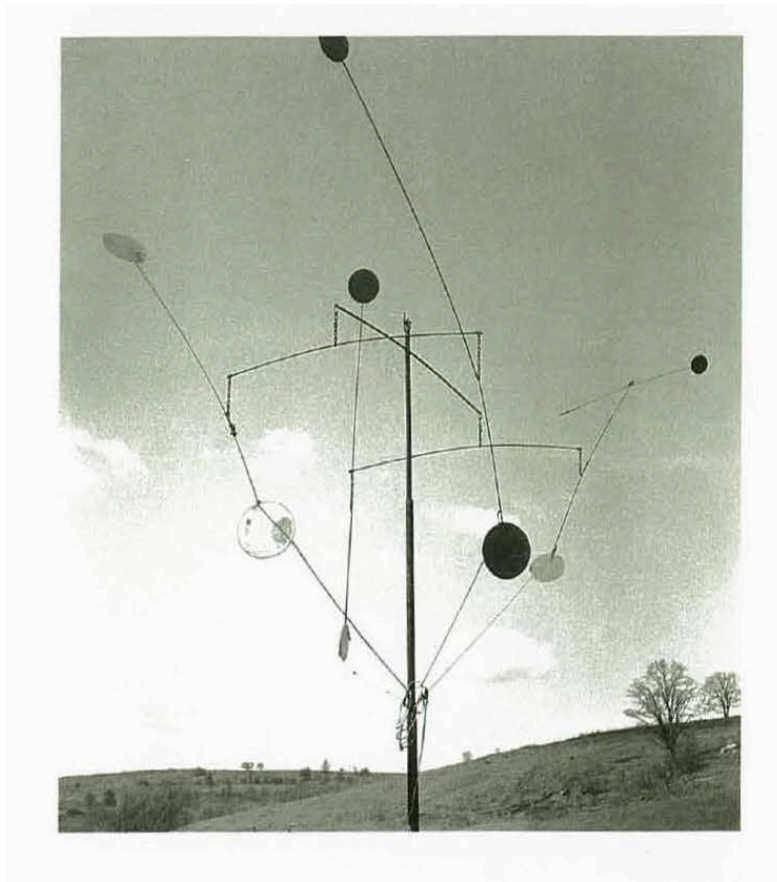
Detail: *Steel Fish* (1934)



Figs. 83-84: Calder, *Man Eater with Pennants*, 1945. MoMA.

Installation Photograph, *Outdoor Sculpture at the Museum*, MoMA, 1948.





Figs. 85-86: Matter, *Nine Discs* (1936), Roxbury, Connecticut, 1938. Calder Foundation.

Matter, *Aluminum Leaves, Red Post* (1941), Roxbury, Connecticut, 1941. Calder Foundation.



Fig. 87: Matter, *Big Bird* (1937) with Maquettes at the Pierre Matisse Gallery, 1937. Calder Foundation.



Fig. 88: Matter, Calder with *Nine Discs* (1936), Roxbury, Connecticut, 1938.  
Calder Foundation.



Figs. 89-90:  
Installation Photographs, MoMA Sculpture Garden, *Art in Our Time*, MoMA, 1939



Figs. 91-92: Philip Johnson, Abby Aldrich Rockefeller Memorial Sculpture Garden, (1953).  
MoMA.



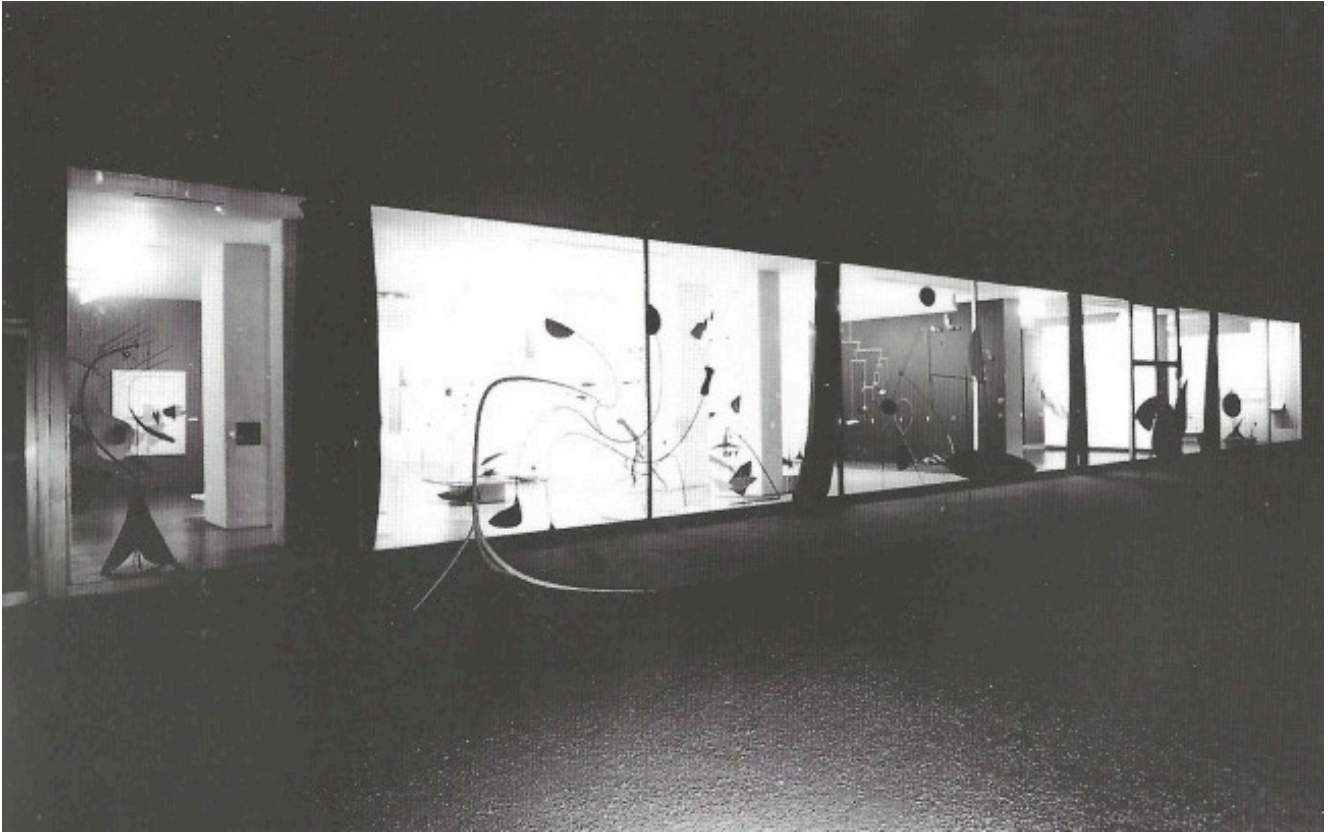
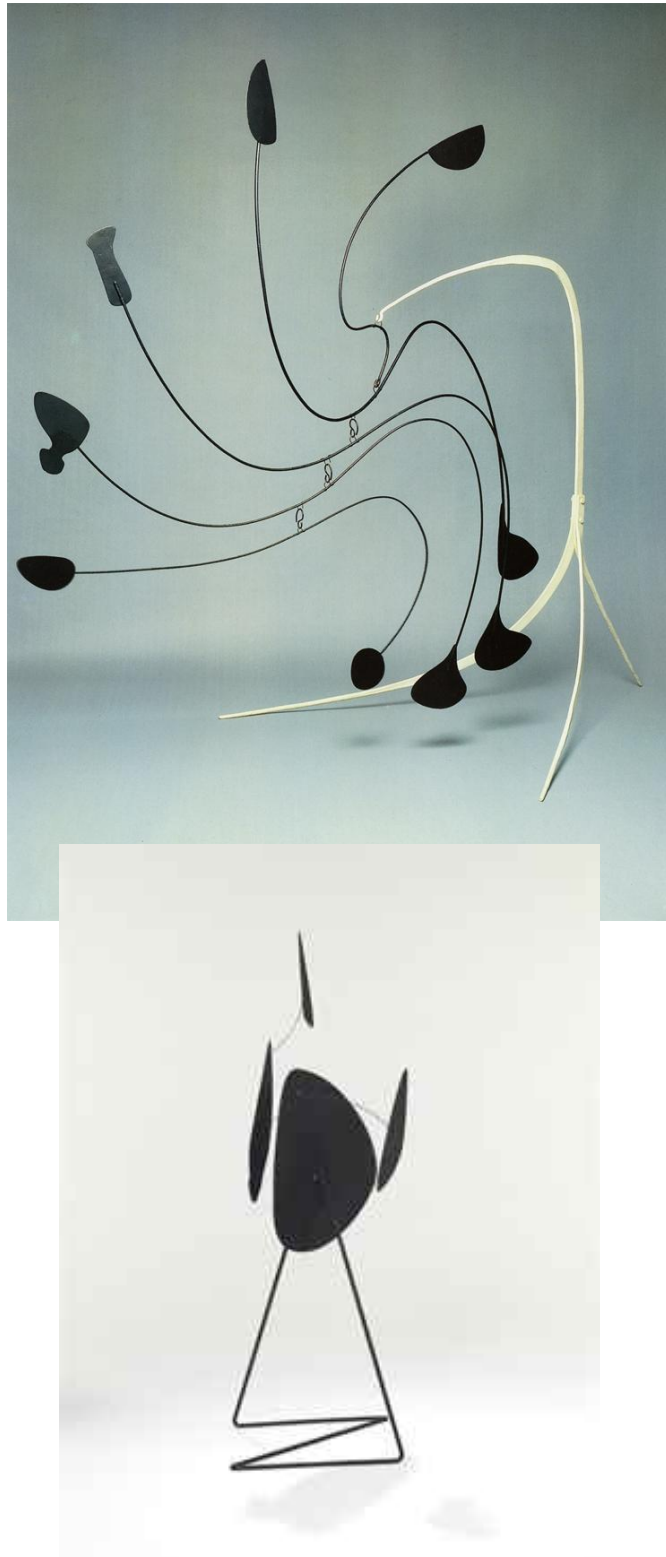


Fig. 93 Soichi Sunami, Installation Photograph, *Alexander Calder*, 1943-44, MoMA.



Figs. 94-95: Calder, *The Spider*, 1940. Nasher Collection.  
Calder, *Spherical Triangle*, 1939. Private Collection.

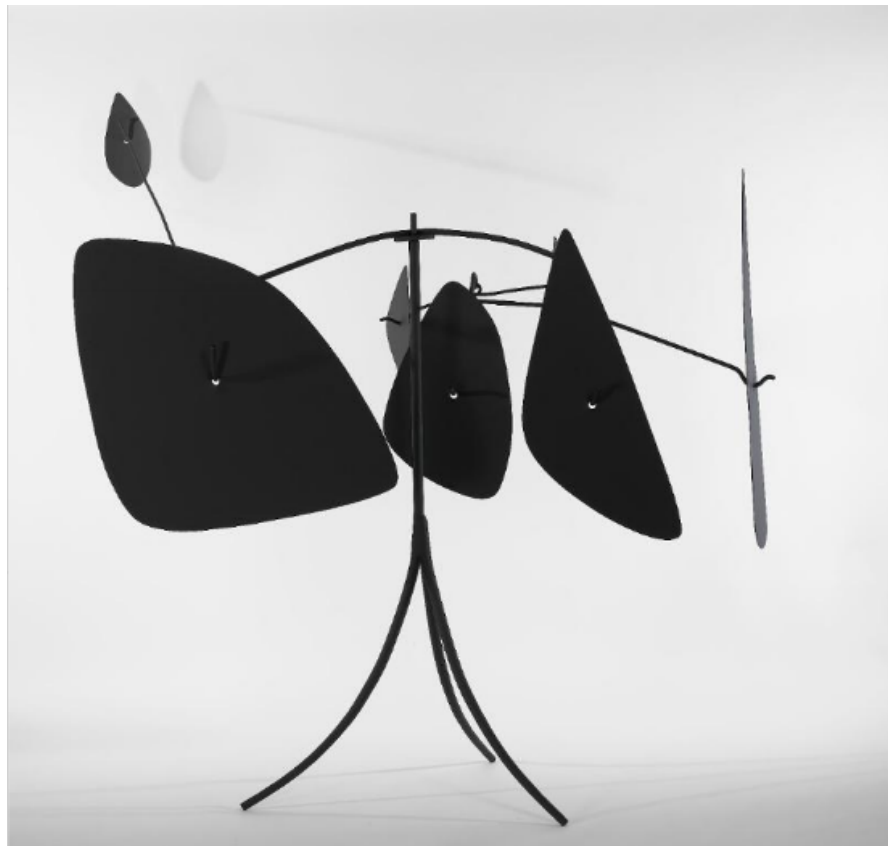
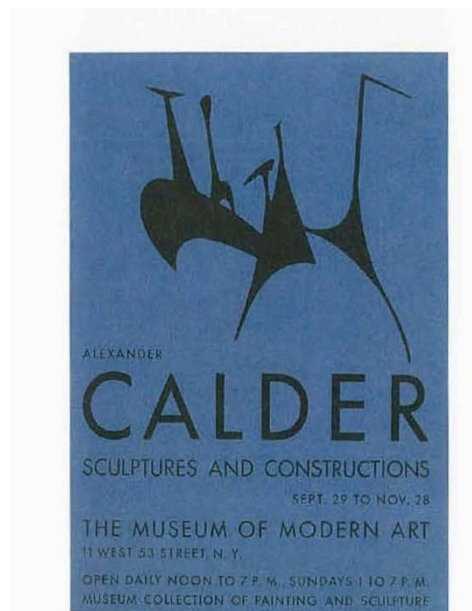
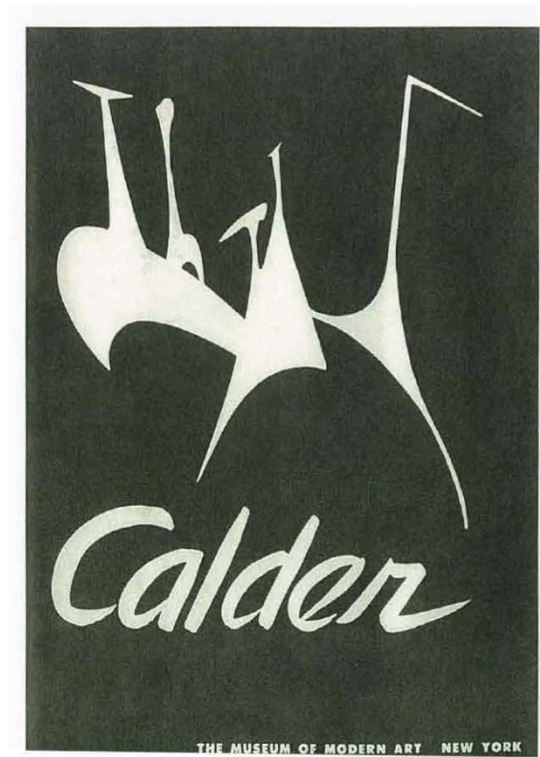
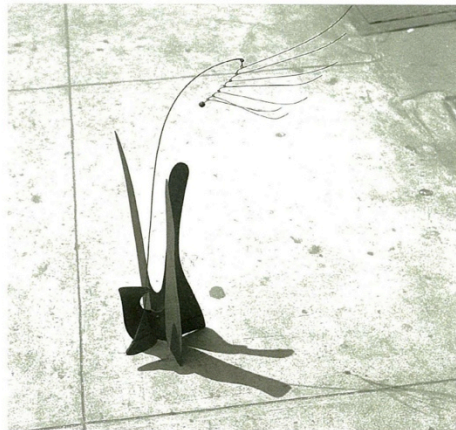
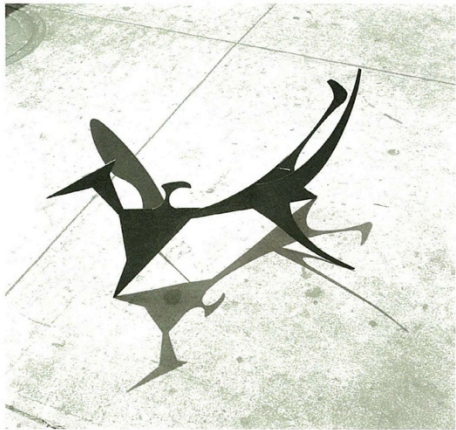


Fig. 96: Calder, *Four and Three*, 1944.



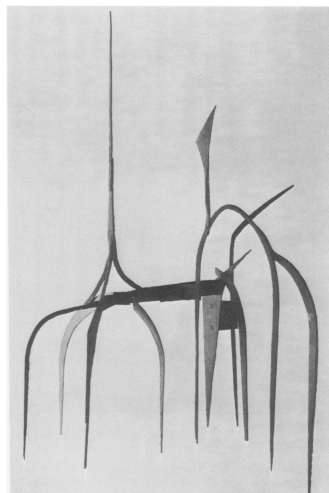
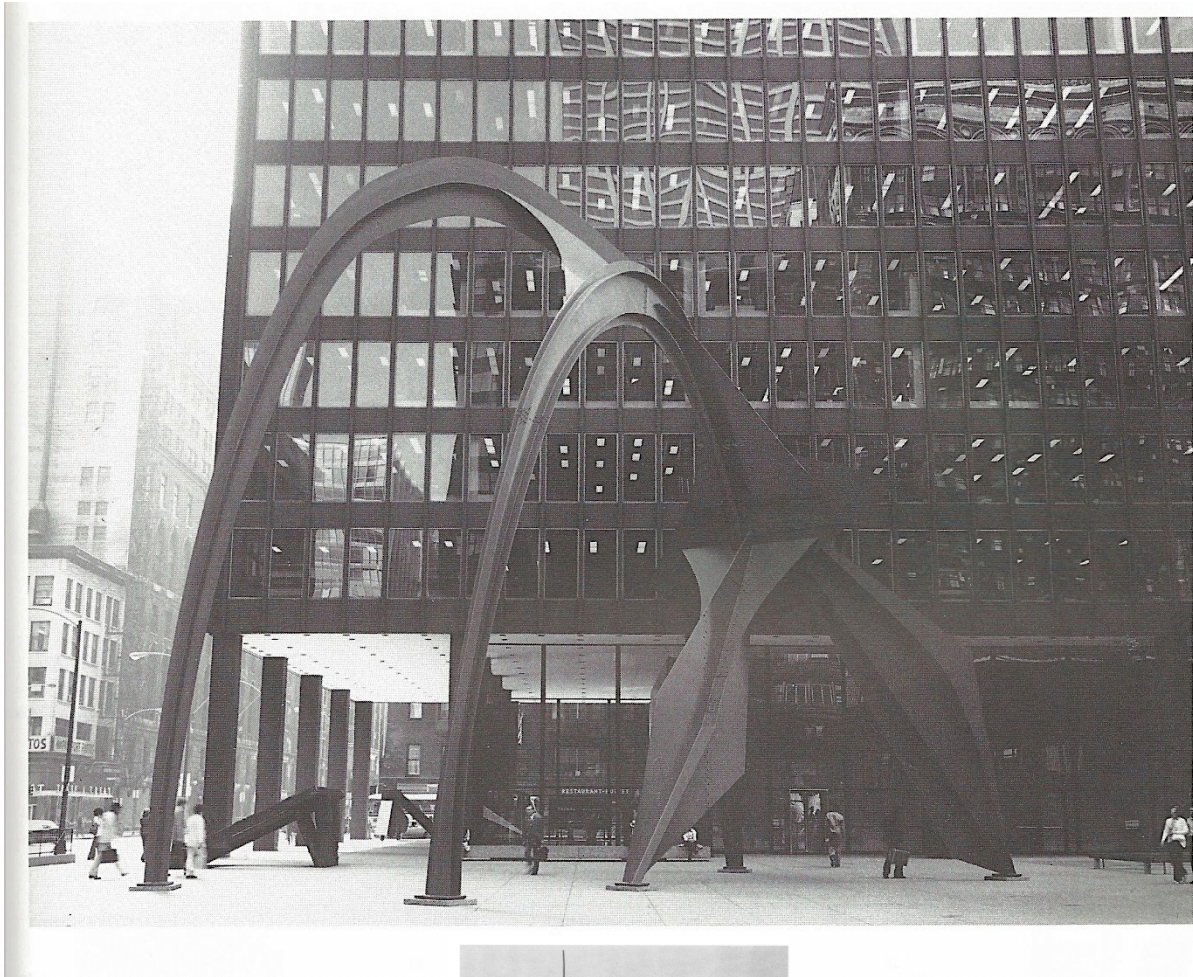
Figs. 97-98: Matter, Graphic Designs for *Alexander Calder* Catalog and Poster, 1943.  
Calder Foundation.



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Figs. 99-101: Matter, Stables on Sidewalk, Calder's New York Storefront Studio, 1940.  
Calder Foundation.





Figs.102-103: Calder, *Flamingo*, 1973, Chicago  
 Calder, *Gothic Construction from Scraps*, 1936. Calder Foundation.

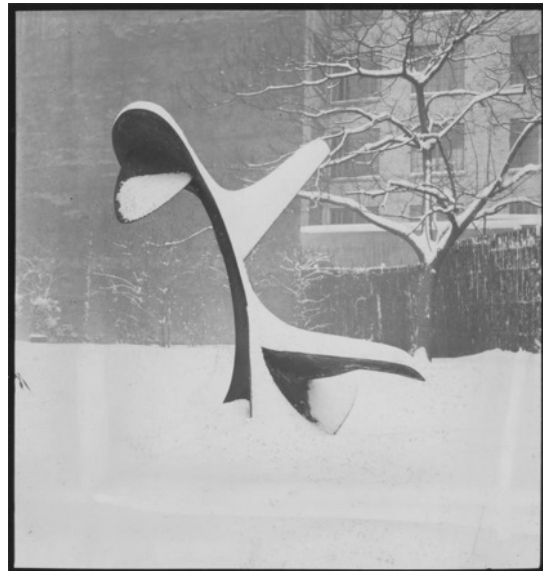


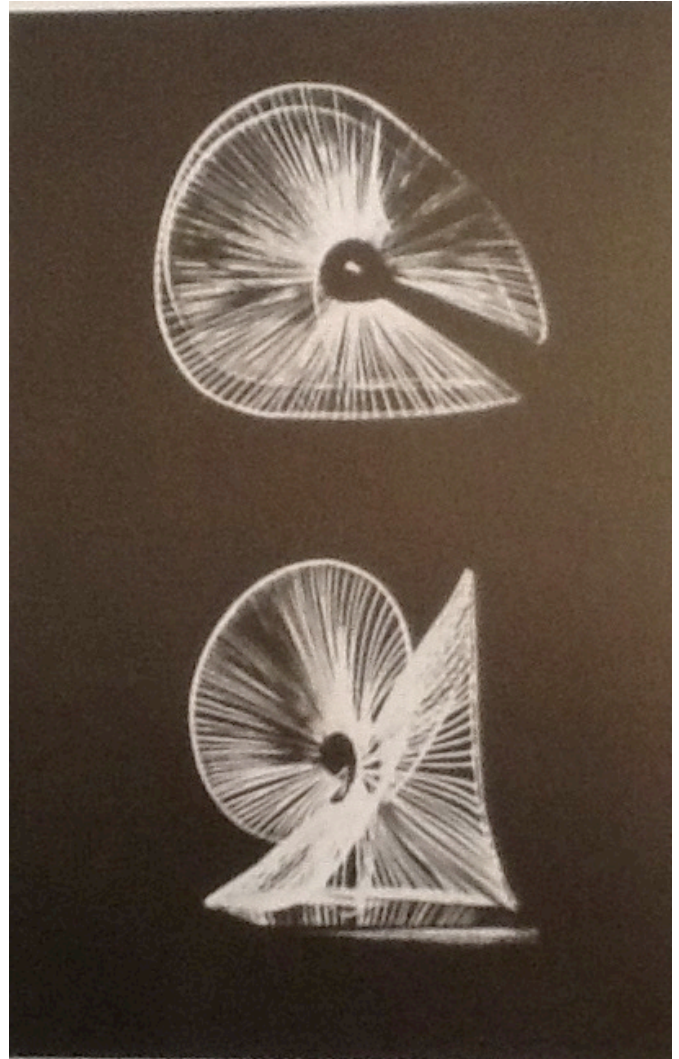
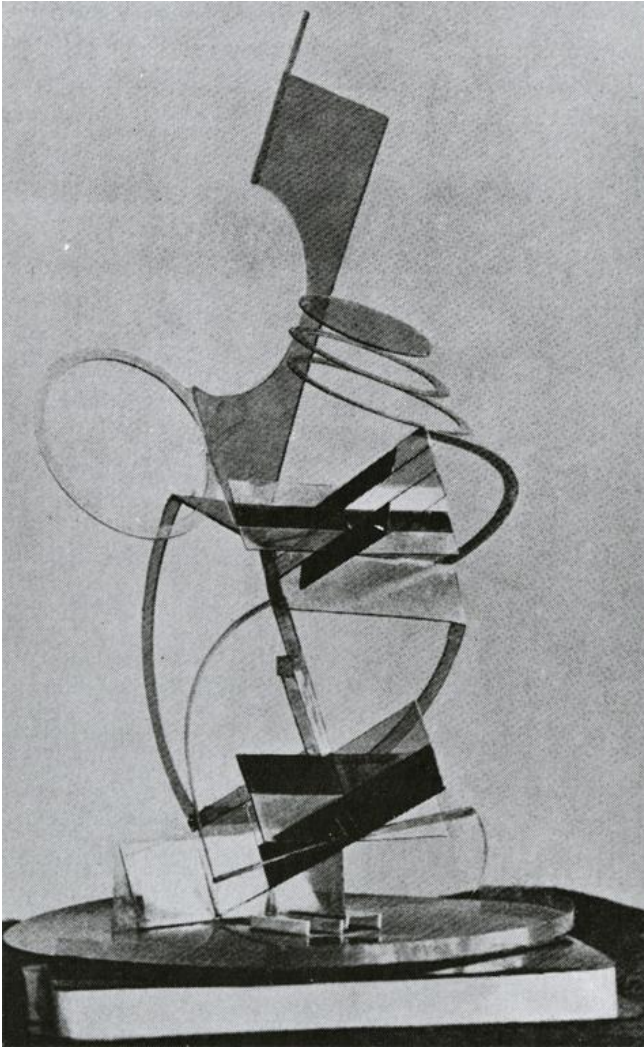
Fig. 104: Herbert Matter, *Whale* (1937), MoMA Sculpture Garden, n.d. Herbert Matter Archive, Stanford University.  
Detail, Installation Photograph, *Whale* in Snow During Outdoor Sculpture Exhibition, MoMA, 1948.





Fig. 105: Oscar Niemeyer, Lucio Costa, and Roberto Burle Marx, Brazilian Ministry of Education and Health, Rio de Janeiro, 1936-43.





Figs. 106-107: Naum Gabo, *Model for a Monument for an Observatory*, 1922. Fragments in Berlinische Galerie, Landesmuseum für Moderne Kunst, Photographie und Architektur, Berlin.

Archival Photograph of Gabo's Lost *Model for Spherical Fountain*, 1938. *Constructing Modernity: The Art and Career of Naum Gabo* (New Haven: Yale University Press, 2000).

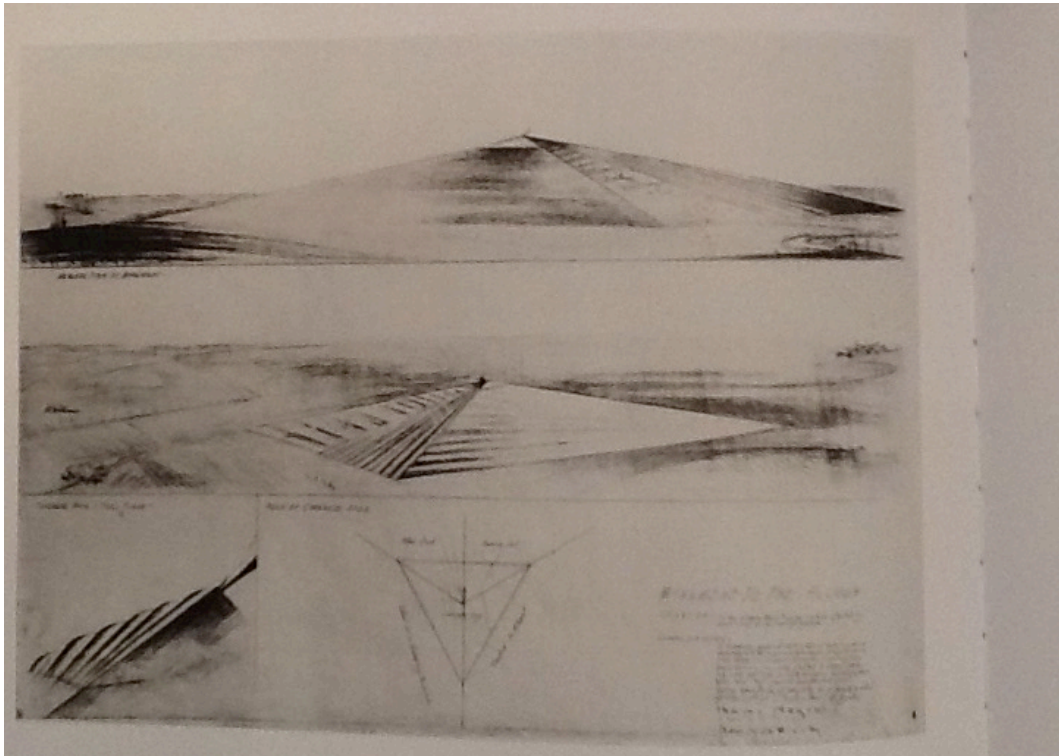


Fig. 108:  
Isamu Noguchi, plans for *Monument to the Plow*, 1933.  
The Noguchi Museum.



Fig. 109: Isamu Noguchi, *This Tortured Earth*, (model for an earthwork), 1943.  
The Noguchi Museum.





Fig. 110: Installation Photograph, Marcel Breuer's *House in the Garden*, MoMA, 1949.



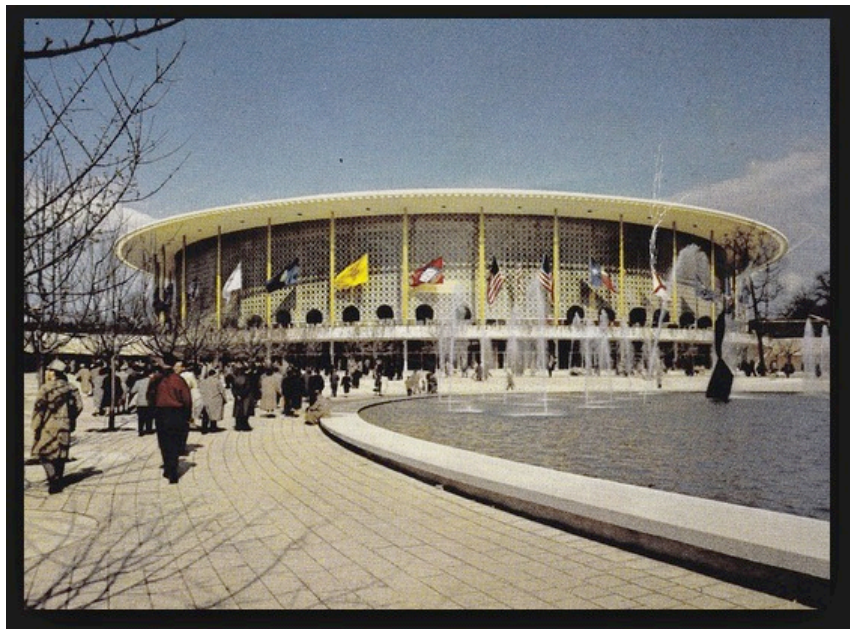
Fig. 111: Herbert Matter, Calder with *Nine Discs* (1936), inscribed photograph Calder sent to Henrique Mindlin in 1945.

*Calder and Brazil: The Tale of a Friendship* (São Paulo: Cosac Naify, 2006)



Fig. 112: Calder, *Black Widow*, 1948, São Paulo.





Figs. 113 and 114: Calder, *The Whirling Ear*, 1958.

*Whirling Ear* and U.S. Pavilion, Expo Brussels 1958.



Figs. 115 and 116: Calder, .125, 1957, International Arrivals Terminal, Idlewild Airport (now J.F.K.), New York.

*La Spirale*, 1958, UNESCO, Paris.





Fig. 117: David Smith, *Man and Woman in the Cathedral*, 1956. Yale University Art Gallery.



Fig. 118: Henry Moore, *Reclining Figure*, 1957. Tate Gallery.

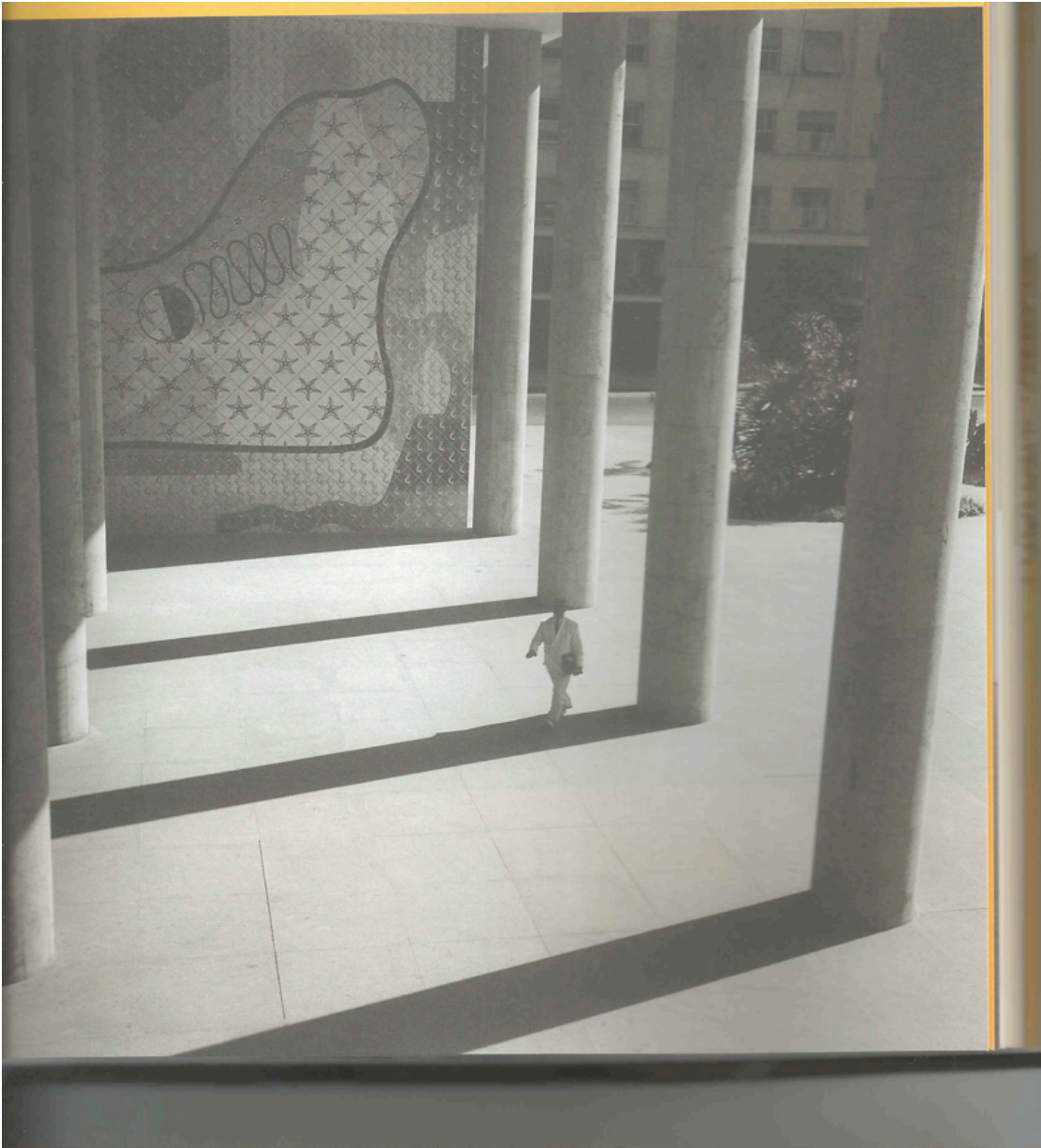


Fig. 119: Niemeyer, Costa and Burle-Marx, Ministry of Education and Health, Rio de Janeiro, 1936-43.

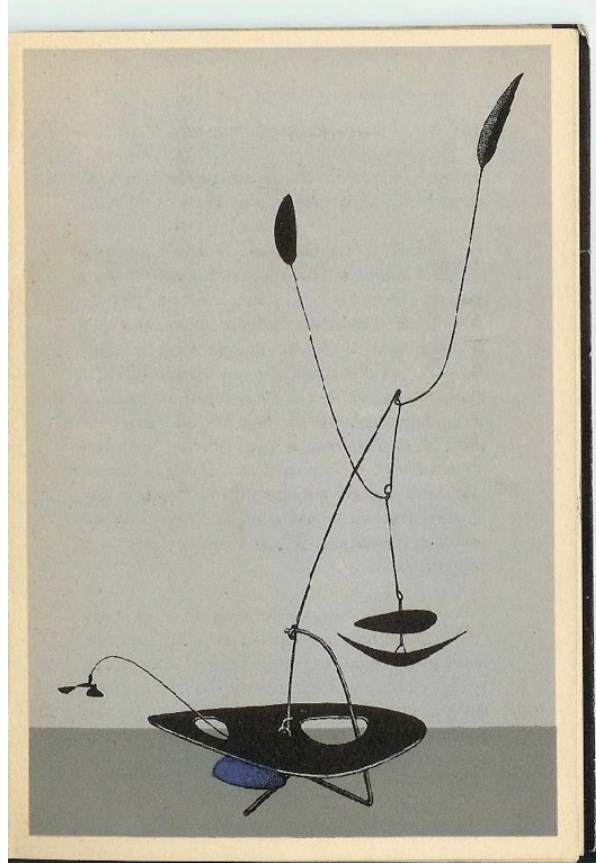


Fig. 120: Niemeyer and Costa, Brazilian Pavilion, New York World's Fair, 1939.



Fig. 121: Marc Vaux, Jacques Lipchitz with Model of *Prometheus Strangling the Vulture*, 1937. Private Collection.





Figs. 122-123: Calder, *Baby Flat Top*, 1946.

*Lily of Force*, 1945. Alexander Calder: *Mobiles, Stables, Constellations*. Galerie Louis Carré, Paris, 1946.



Fig. 124: Rino Levi, Private Residence, São Paulo.



Fig. 125: Installation Photograph, *Alexander Calder*, Museum of Modern Art, Ministry of Education and Health, Rio de Janeiro, 1948.





Figs. 126-127: Levi, Teatro Cultura, 1943, São Paulo.

Interior of Teatro Cultura with Furniture Designed by Levi.

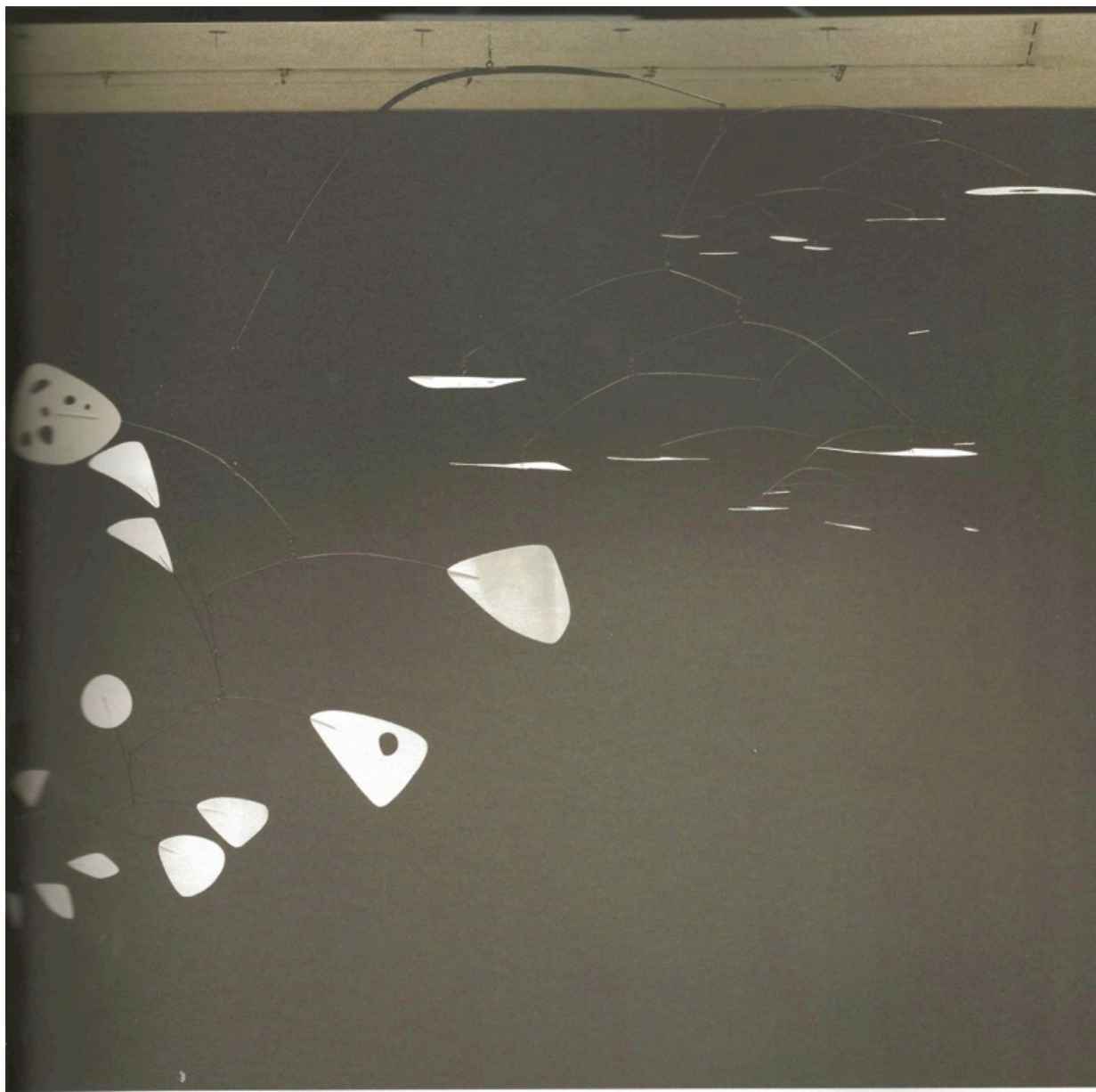


Fig. 128: Calder, *International Mobile*, 1949. Museum of Fine Arts, Houston.



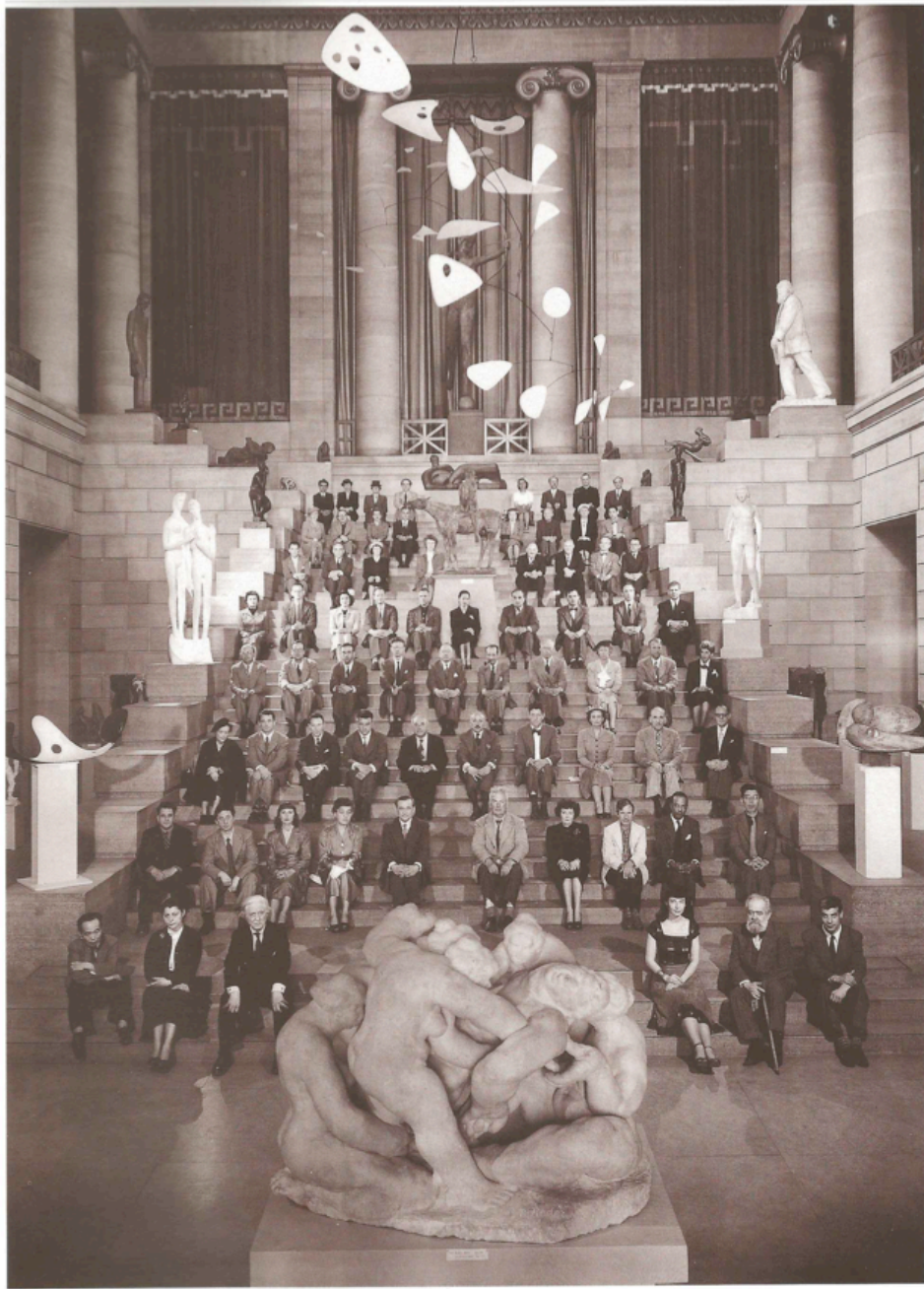


Fig. 129: Portrait of Sculptors Participating in Third Sculpture International, Philadelphia Museum of Art, 1949. *Life*, 1949.



Fig. 130: Herb Gehr for *Life* Magazine, Calder installing *International Mobile*, 1949.



Fig. 131: Richard Lippold, *World Tree*, Harkness Graduate Center, 1952. Harvard University.





Fig. 132: United Nations Headquarters, New York, 1949.

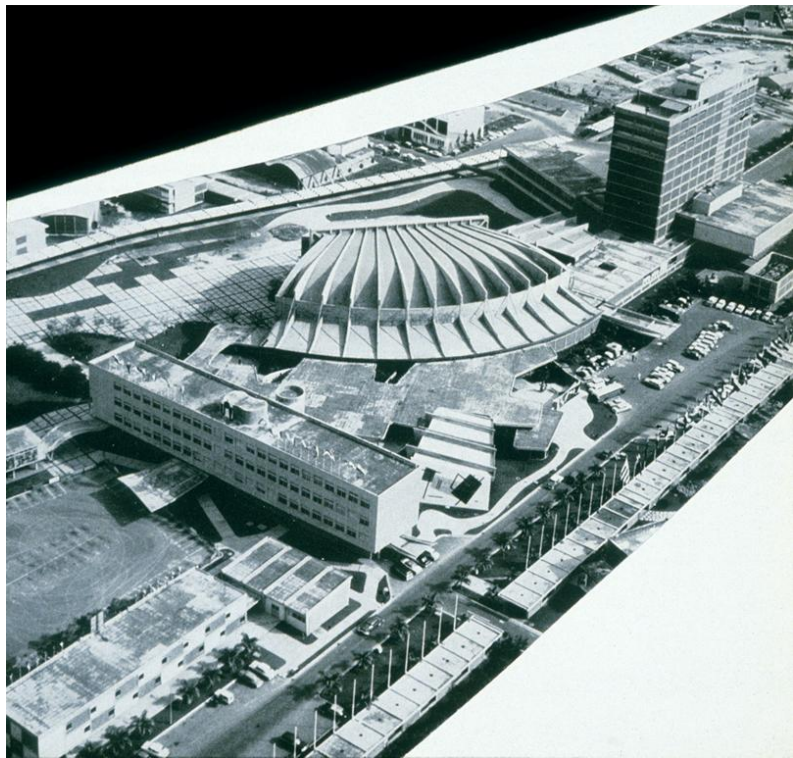


Fig. 133: Carlos Raul Villanueva, Aula Magna Auditorium, University of Caracas, 1953.

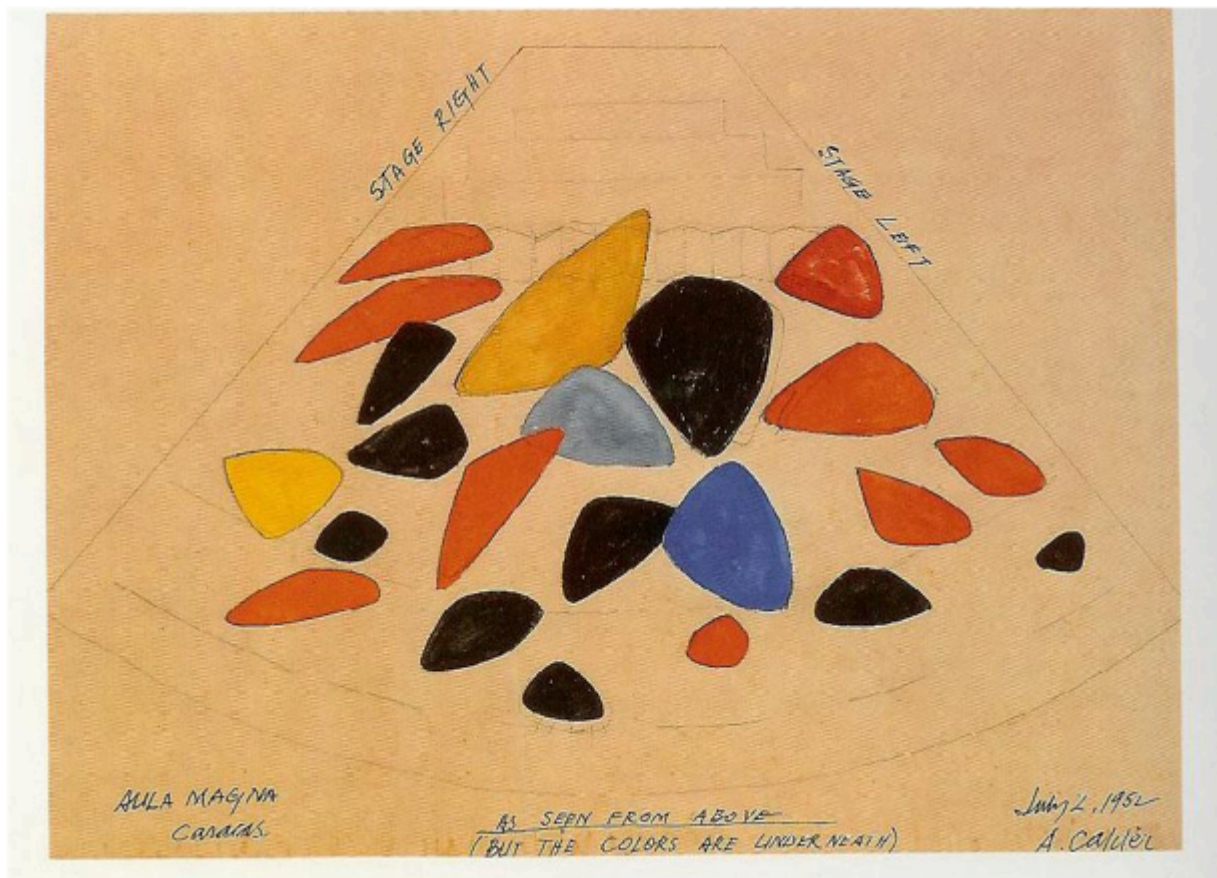


Fig. 134: Calder, Designs for Acoustical Panel "Constellation," Aula Magna, 1952.  
Collection of Margot Villanueva.



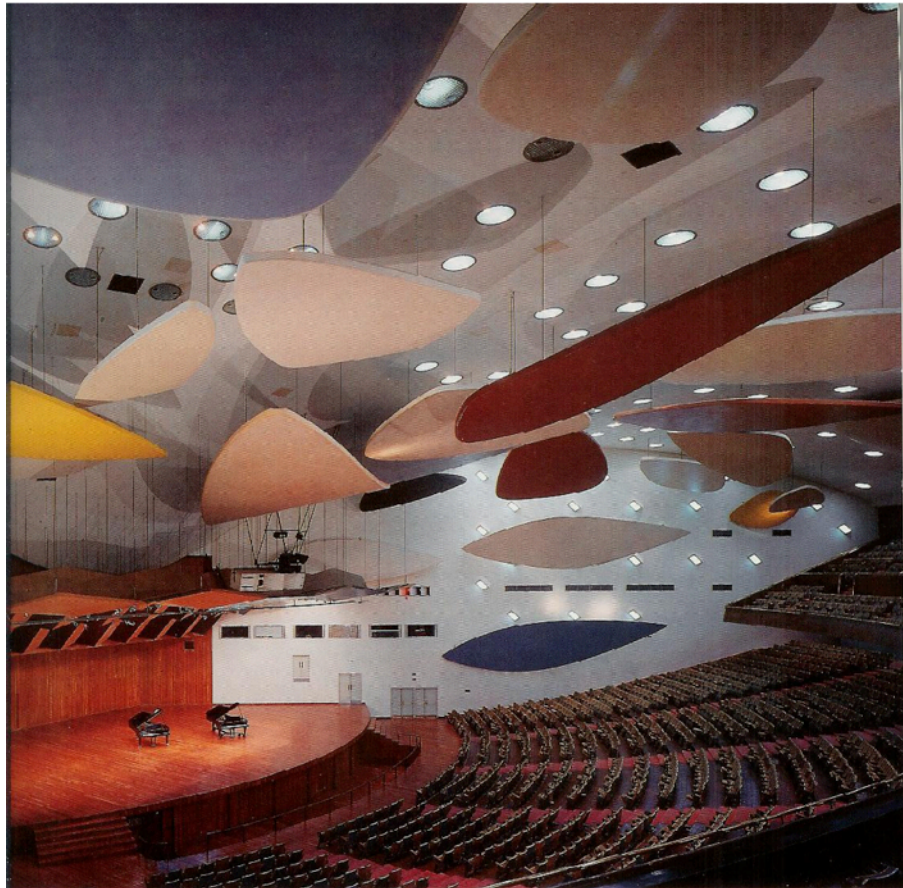
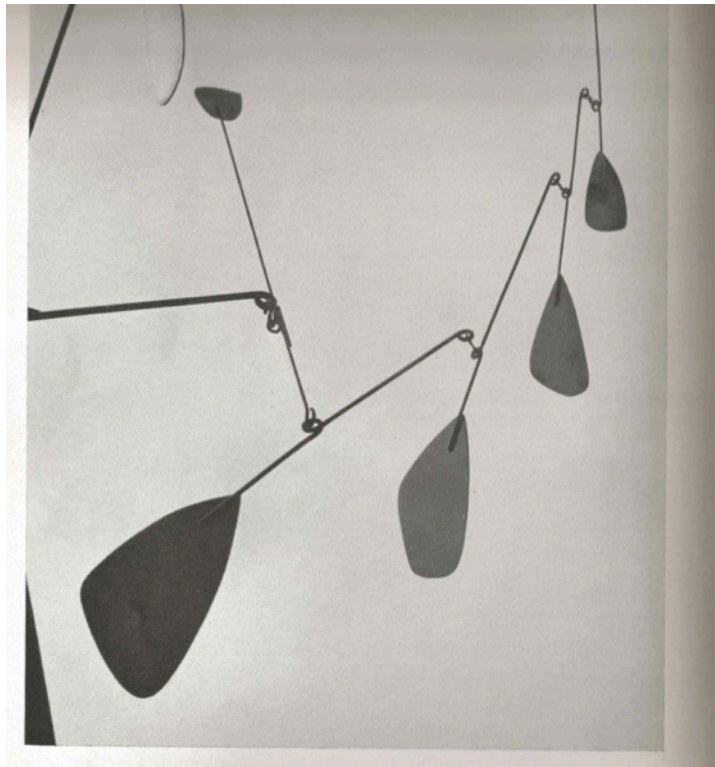


Fig. 135: Calder, Acoustical Panels, Aula Magna Auditorium.



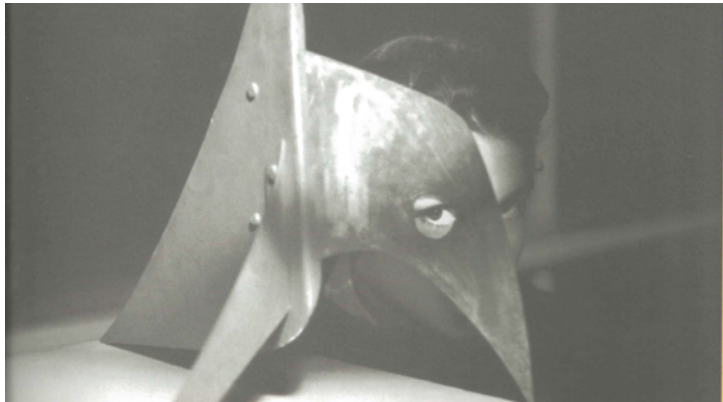
Fig. 136: E.M. Czakó, *Rosenhof*, c. 1953, Hamburg. Calder Foundation, New York.



Figs. 137-138: Calder, *Ten Restless Discs*.  
*Plastik im Freien* (Prestel Verlag: München, 1953).

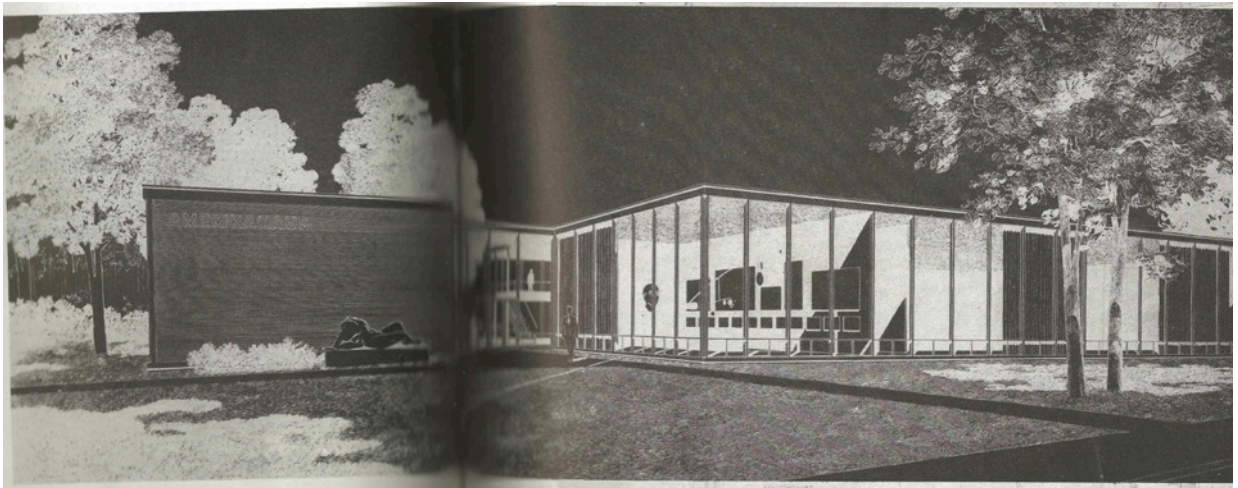
Newswire Photograph of *Ten Restless Discs*, 1953.





Figs. 139-140: Installation Photograph, *Alexander Calder*,  
São Paulo Museum of Modern Art, 1948.

Calder, *Corcovado*, 1951. Fundació Joan Miró.



Figs. 141-142: U.S. Consulate, Frankfurt. Loeffler Collection of Research Papers on American Embassies, Columbia University, New York.

Rendering of an Amerika House, *Architectural Forum*, 1953.



Fig. 143: Calder, *Hextopus*, 1955, U.S. Consulate, Frankfurt.  
Loeffler Collection of Research Papers on American Embassies, Columbia University, New  
York.



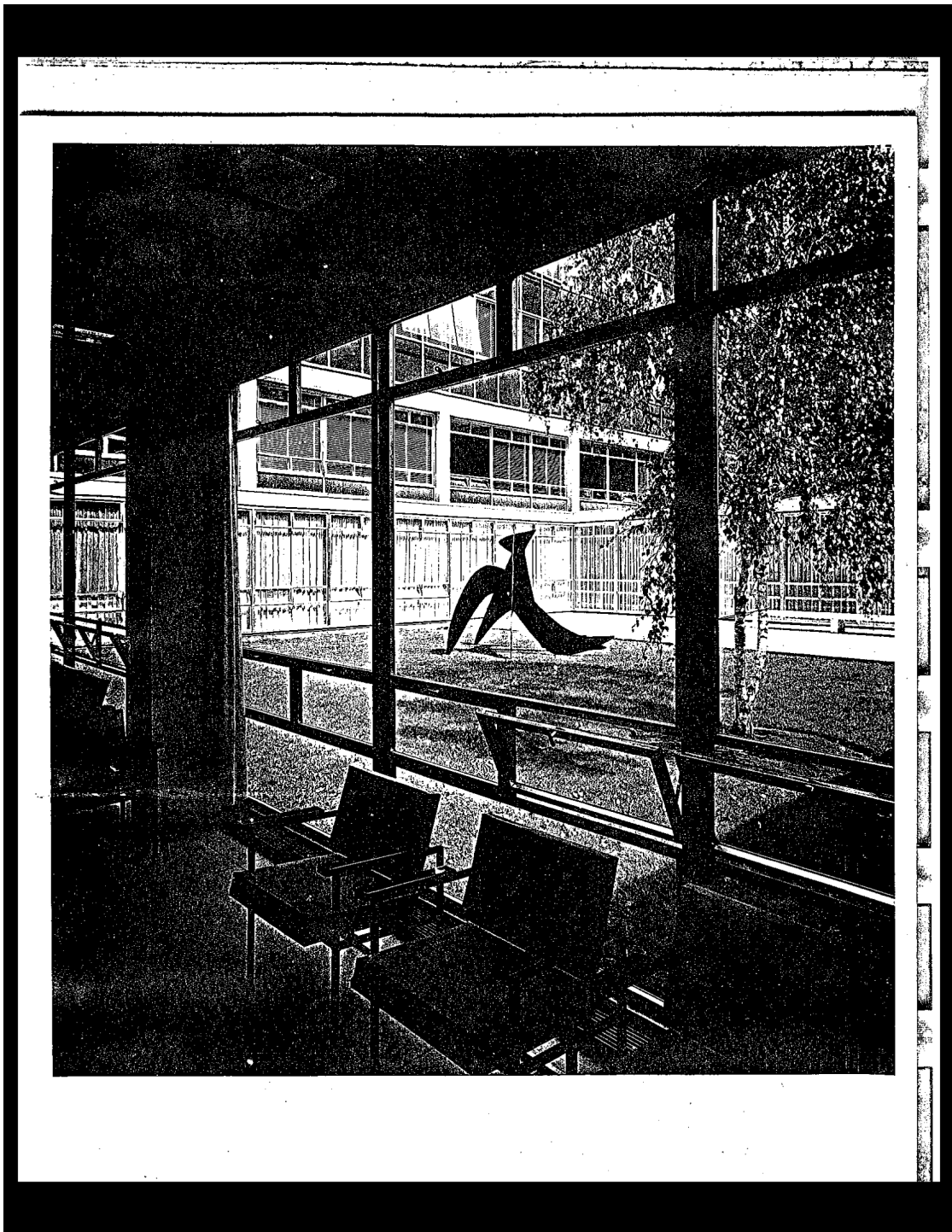
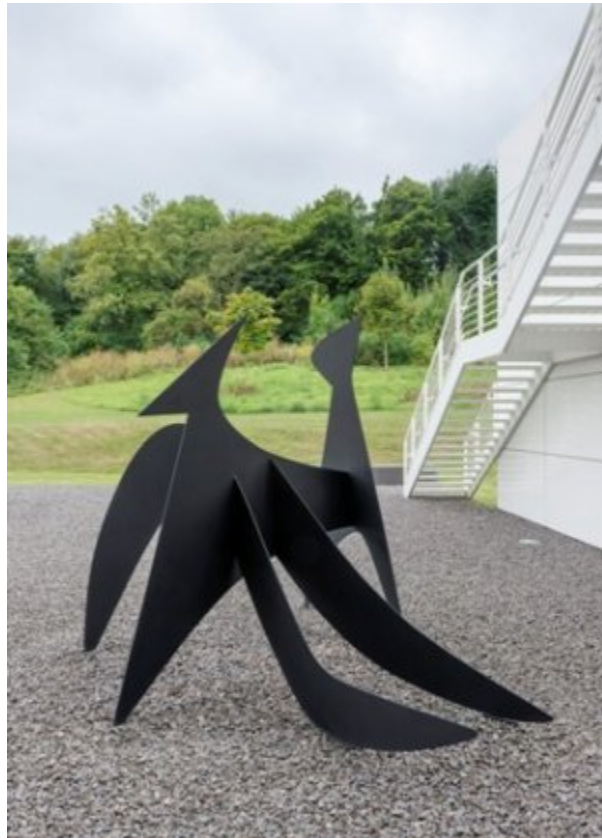


Fig. 144: Calder, *Hextopus*, 1955, U.S. Consulate, Frankfurt. Loeffler Collection of Research Papers on American Embassies, Columbia University, New York.



Figs. 145-146: Calder, *Hextopus*, 1953. Arp Museum.





Fig. 147-148: Breuer, Nervi and Zehruss, UNESCO, Paris.

Henry Moore with *Reclining Figure*, 1958, UNESCO, Paris.

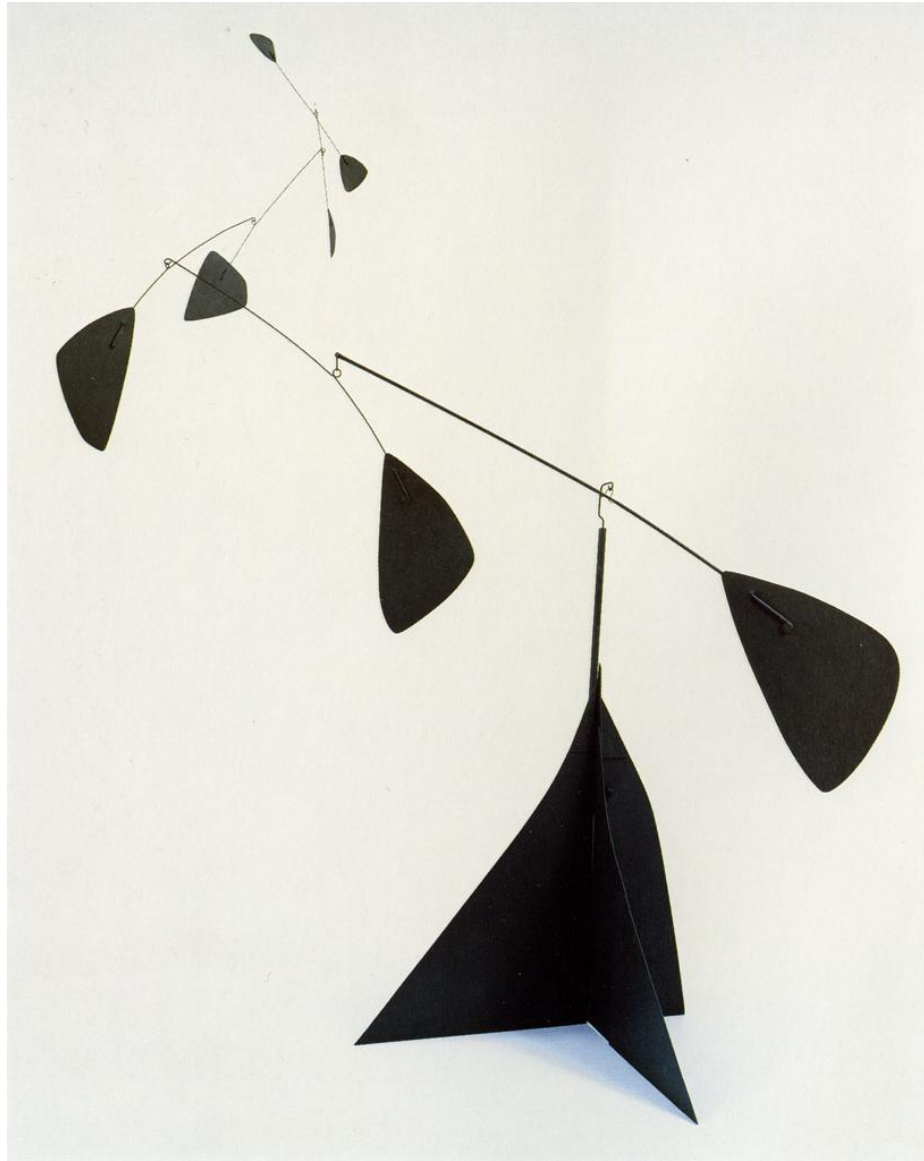


Fig. 149: Calder, *La Spirale*, 1958 (maquette). Collection of Irma and Norma Braman.



Figs. 151-152: Edward Durell Stone, U.S. Pavilion, Expo Brussels, 1958.

U.S. Pavilion on Commemorative Stamp, 1958.





Figs. 152-153: Pavilion of U.S.S.R., Expo Brussels 1958.

Elliptical Pool, U.S. Pavilion, and Pavilion of U.S.S.R., Expo Brussels 1958.



Fig. 154: Naum Gabo, *Bijenkorf Construction*, 1957, Rotterdam.



155-156: Noguchi, *Japanese Garden*, UNESCO, Paris, 1956-58.





Fig. 157: David Smith, *Iron Woman*, 1955-57. Collection of the Artist, Bolton's Landing, New York.



Fig. 158: Ugo Mulas, David Smith in the Italsider Factory at Voltri, 1962.





Figs. 159-160: David Smith, *Voltri VII*, 1962.

Mulas, *Voltri*, Roman Amphitheatre, *Scultura nella citta*, 1962, Spoleto.

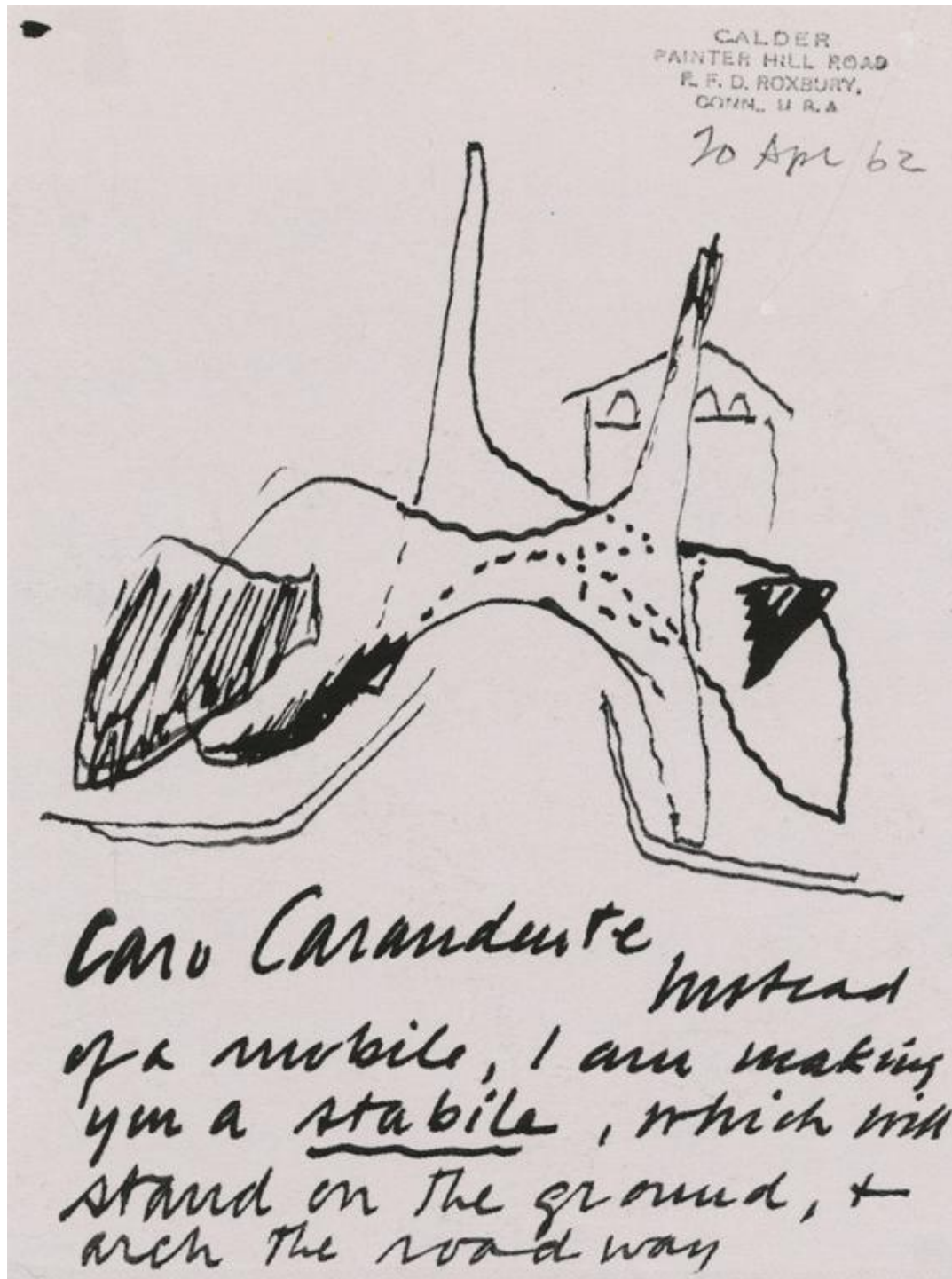


Fig. 161: Calder, Proposal for *Teodelapio*, 1962.  
*Teodelapio*: Alexander Calder. (Milan: Charta, 1996).



Fig. 162: Mulas, Calder with reinforcements for Teodelapio, 1962.  
*Teodelapio: Alexander Calder.* (Milan: Charta, 1996).



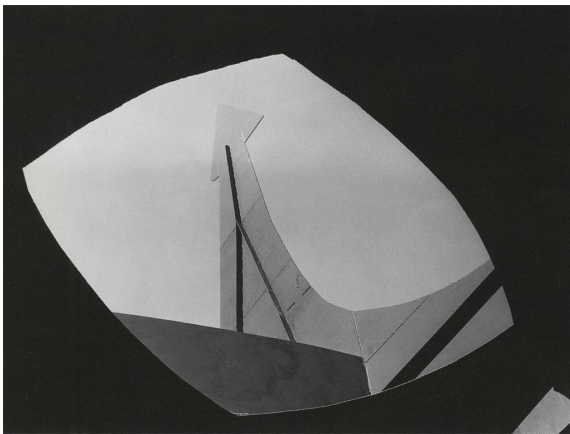


Fig. 163: Calder, *Teodelapio*, 1962, Spoleto.

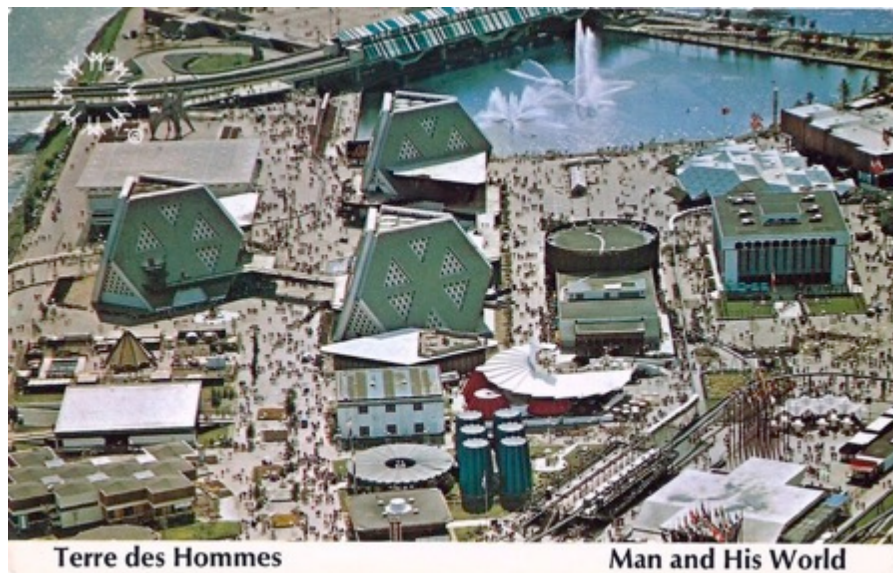


Figs. 164-165: Calder, *La Grande Voile*, 1966, Massachusetts Institute of Technology.



Fig. 166: View of Boston from Interior of *La Grande Voile*, 2015.



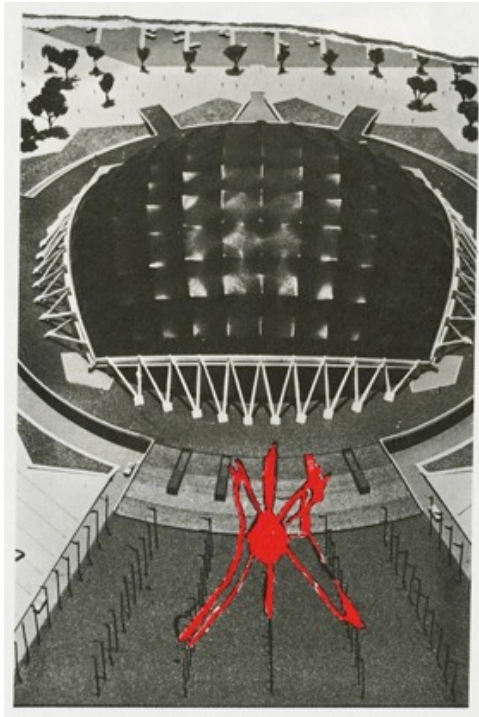


Figs. 167-168: Place Ville Marie, Montreal, 1964,  
Aerial of Ile Sainte-Hélène, Expo '67, Montreal.



Figs. 169-170: Calder, *Man*, Expo '67, Montreal.





Figs. 171-172: Calder, Correspondence with Mathias Goeritz Regarding *El Sol Rojo*, 1967.  
*Calder: El Sol Rojo* (Jerusalem: The Israel Museum, 1980).

*El Sol Rojo* under Construction, 1968.  
*Calder: El Sol Rojo* (Jerusalem: The Israel Museum, 1980).



Fig. 173: Calder, *El Sol Rojo*, 1968. Mexico City.



Figs. 174-176: Estadio Azteca, "Peace" Logos at 1968 Olympic Games in Mexico City.





Figs. 177-178: Picasso *Head of a Woman*, 1964. Chicago.

Calder, *La Grande Vitesse*, 1969. Grand Rapids, Michigan.



Fig. 179: Calder, *La Grande Vitesse*, 1969. Grand Rapids, Michigan.



Figs. 180-181: Calder, *La Grande Vitesse*, 1969. Grand Rapids, Michigan.



Figs. 182-183: Mark Di Suvero, *Untitled*, 1965. Collection of the Artist.

Tony Smith, *Die*, 1966. MoMA.



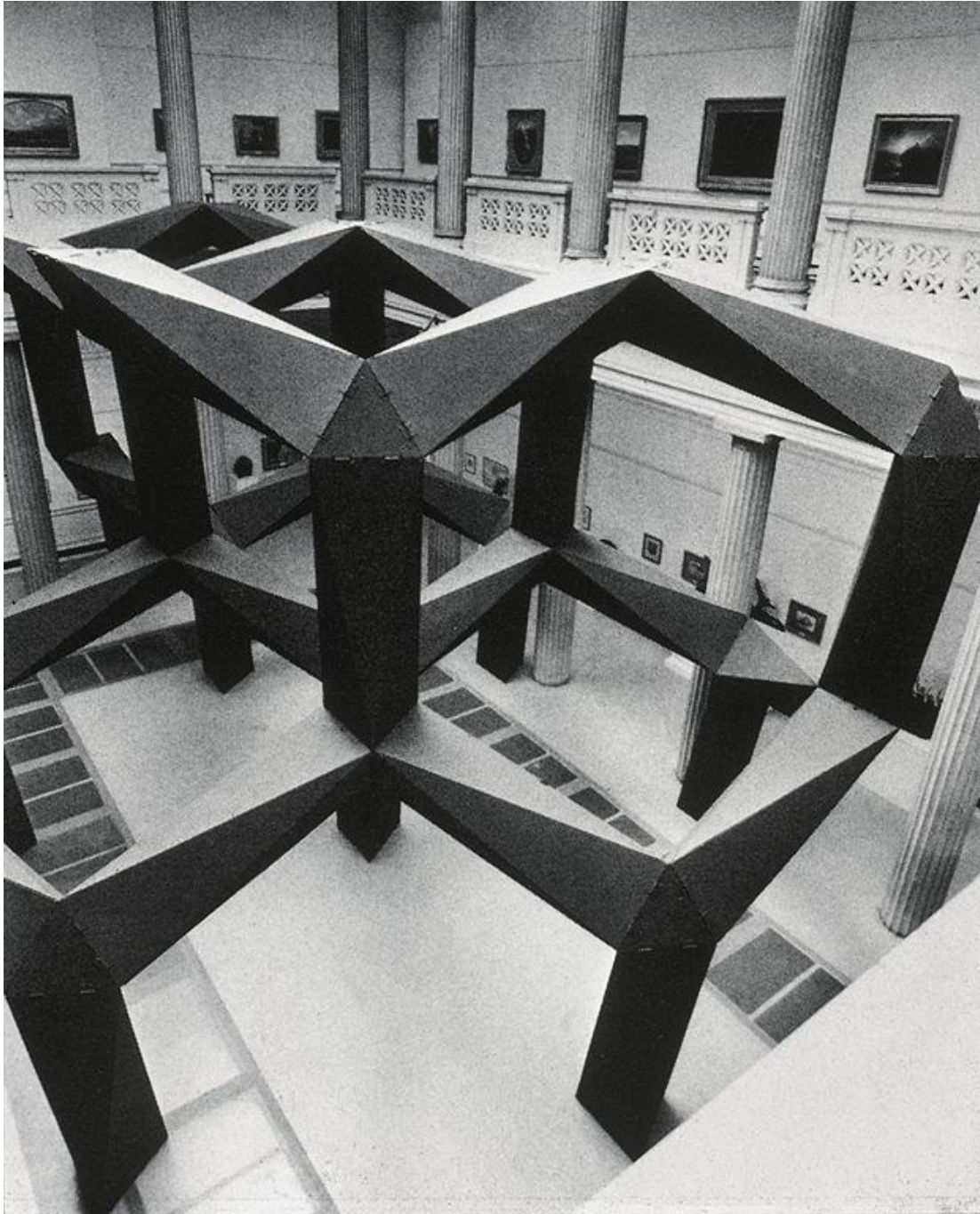
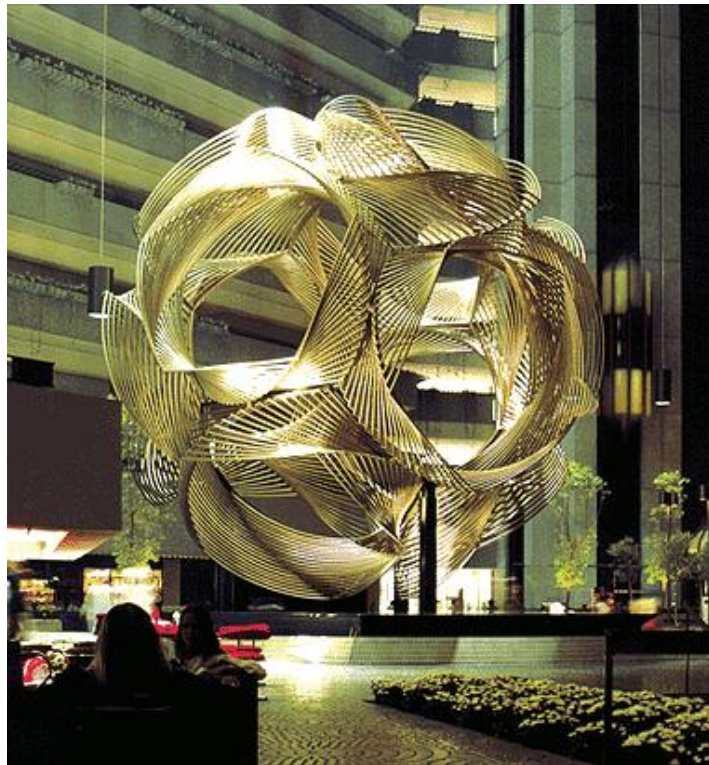


Fig. 184: Installation Photograph, Tony Smith, *Smoke*, Corcoran Gallery of Art, Washington, D.C., 1967.





Figs. 185-186: Richard Lippold, *Floris Rara*, Hyatt Regency Atlanta, 1974.

Charles Perry, *Eclipse*, Regency Hyatt House San Francisco, 1973.



Fig. 187: Calder, *Untitled* for the East Wing of the National Gallery of Art, Washington, D.C. (maquette), 1972. National Gallery of Art.

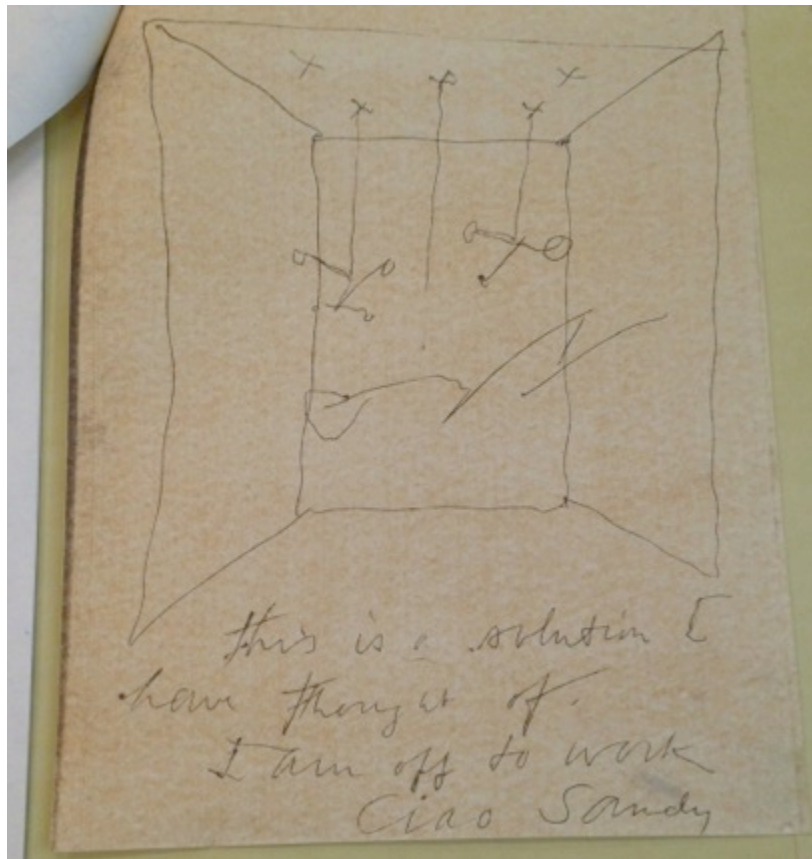


Fig. 188: Calder, scheme for multiple mobiles for the Philadelphia Federal Reserve, 1973. Perls Galleries Records, Archives of American Art, Smithsonian Institution, Washington, D.C.

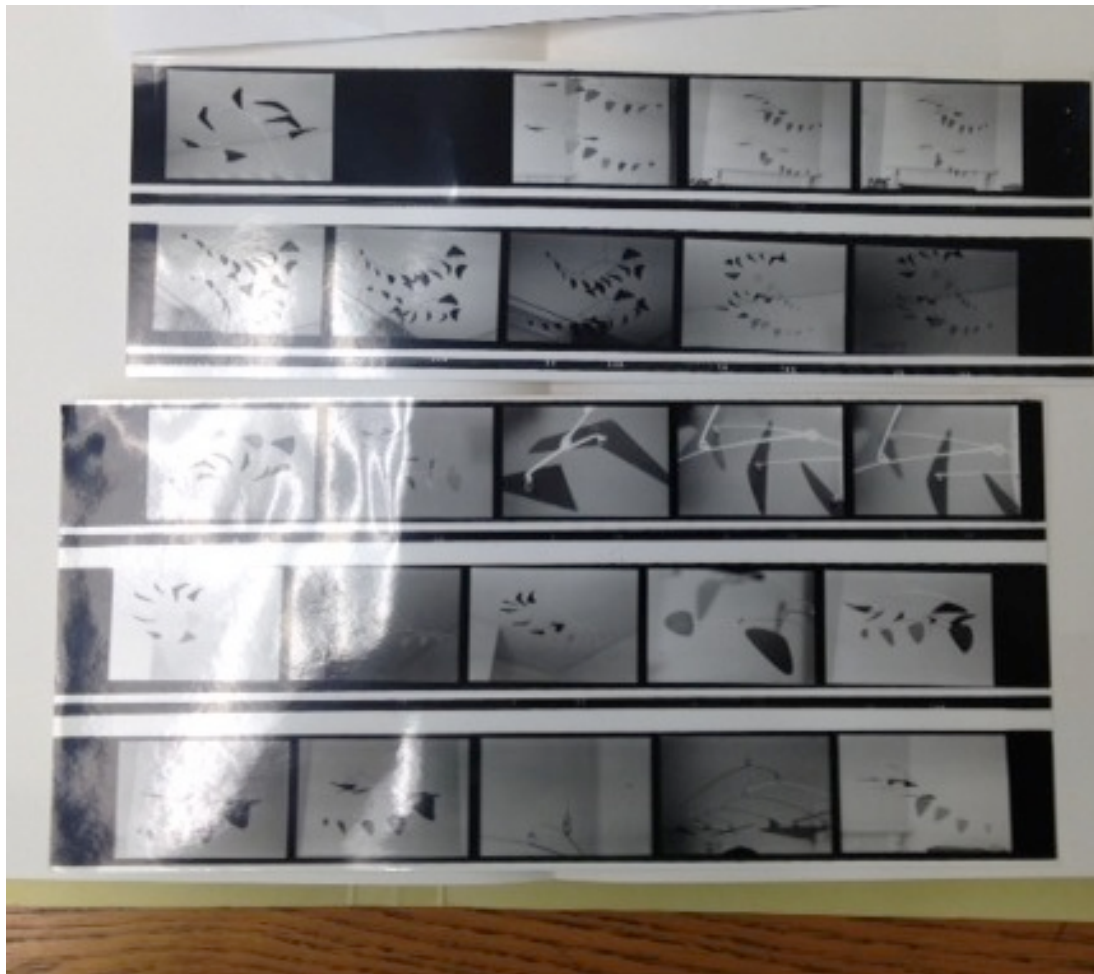
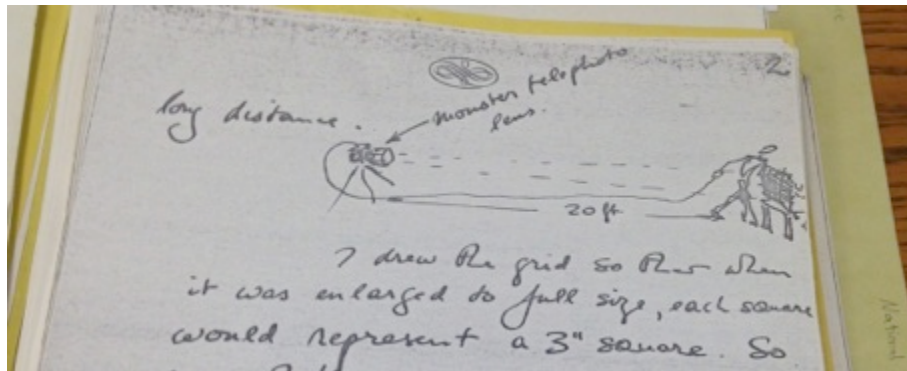
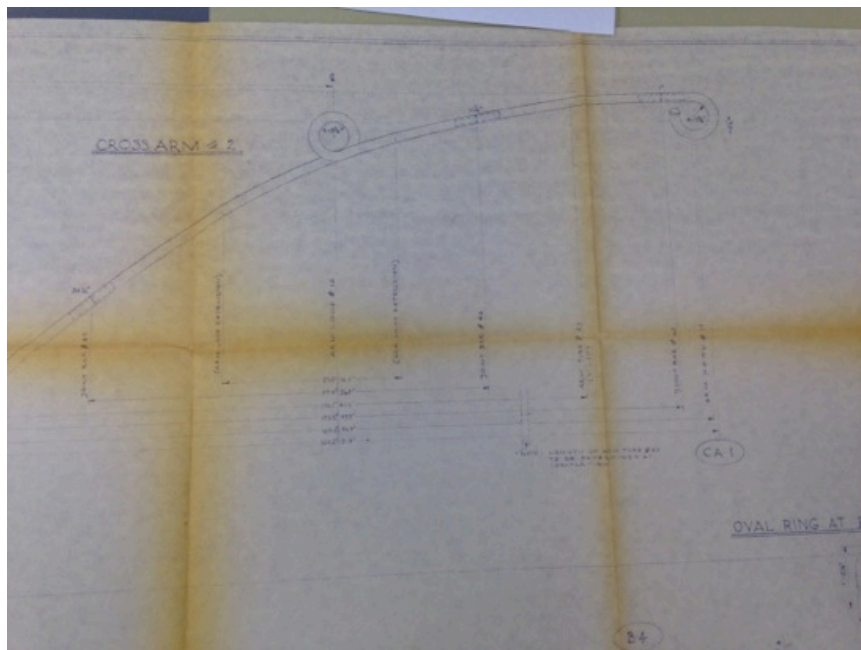


Fig. 189-190: Matisse's correspondence with Calder on plans for enlarging *Untitled* for the National Gallery. Perls Galleries Records.





Figs. 191-192: Paul Matisse testing arms for *Untitled*, 1976.

Technical plans for arms of *Untitled* for the National Gallery of Art, 1976. Perls Galleries Records.



Fig. 193: Calder, *White Cascade*, 1976. Federal Reserve Bank of Philadelphia.



Fig. 194: Calder, *Untitled*, 1976. National Gallery of Art, Washington. D.C.





Fig. 195: Calder, *Untitled*, 1976. National Gallery of Art, Washington. D.C.

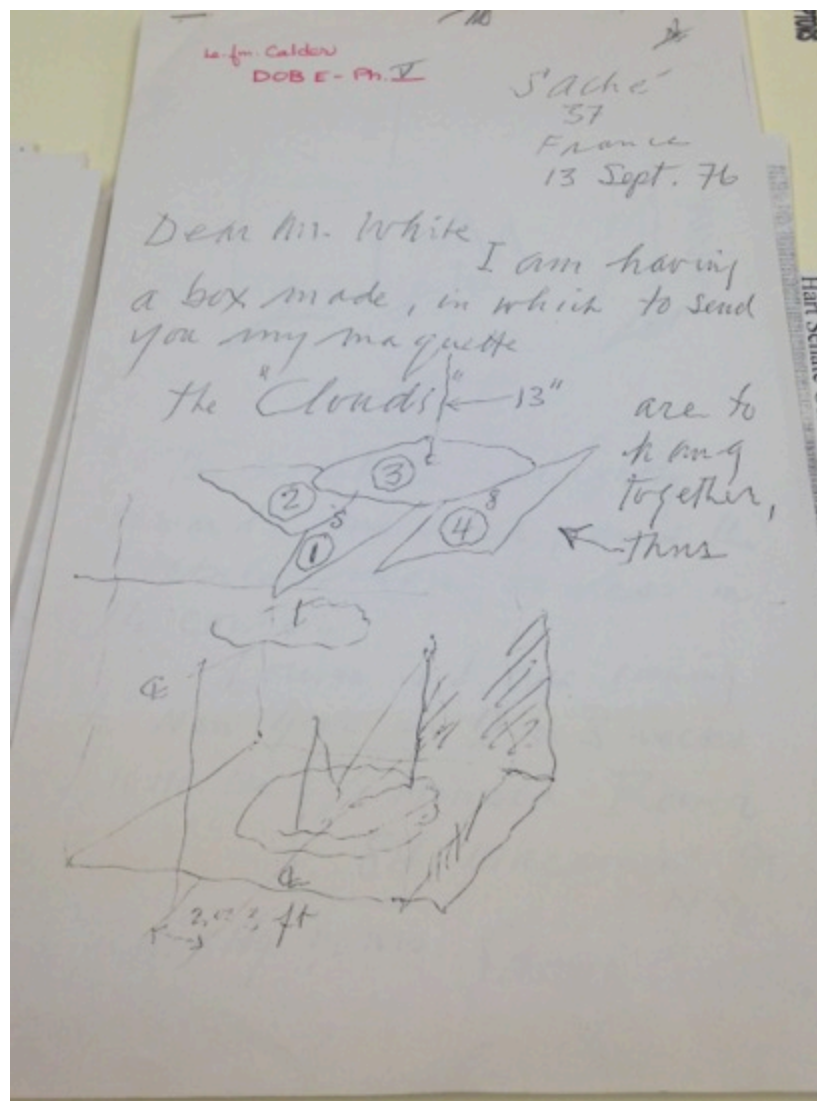


Fig. 196: Calder, Design for *Mountains and Clouds*, 1975. Archives of the Curator of the Capitol, Washington, D.C.



Fig. 197: *Mountains and Clouds*, 1985-86. Hart Senate Office Building, Washington, D.C.



Fig. 198: Installation Photograph of Daniel Buren, *Peintre-Sculpture*, Solomon R. Guggenheim Museum of Art, New York, 1971.



Fig. 199: Richard Serra, *Tilted Arc*, 1981. Federal Plaza, New York.





Fig. 200: Donald Judd, Marfa: North Artillery Shed: Interior.