PLASTICITY AGAINST PLASTIC:

SYNTHETICS IN THE PRACTICE, THEORY, AND CONSERVATION OF ART SINCE THE 1960s

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Dla tych, którzy myślą że nie mogą

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ABSTRACT

PLASTICITY AGAINST PLASTIC:

SYNTHETICS IN THE PRACTICE, THEORY, AND CONSERVATION OF ART SINCE THE 1960s

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In 1969, U.S. artist and educator Thelma R. Newman observed that plastics have caused “a silent revolution.” Art history and criticism have yet to grapple with the relationship between the plastic arts and plastic, that most prosaic of materials. Upon first glance, it may seem that art and plastic have little in common. Yet, plastic and art are imbricated in terms of value because both are context-dependent: art and plastic are containers for social meanings and cultural values. Plastic is a challenging material to think about because its many iterations can assume varying degrees of shape, texture, hardness, density, or color, and because the term “plastic” is used to denote the quality of being shaped or molded—an attribute that was once regarded as specific to aesthetics, but is now a commercial and manufacturing process. In this dissertation, case studies of art objects, criticism, and conservation from the1960s and the 1970s reveal that the concept of “plastic” was especially contested and malleable at this time. Drawing on cultural anthropology, continental philosophy, transgender studies, and polymer chemistry, this study parses out the relationship between plastic and plasticity as a dialectic of becoming plastic, or hardening into a stable form or category, and the movement of plasticity, a dynamic that destabilizes hierarchies. Art objects featuring synthetics exist on the same continuum as discarded consumer plastic, and these materials open the artwork onto the world in unprecedented ways, underscoring the work’s participation within greater networks of economy and ecology. The relationship between viewers and artworks is no longer purely aesthetic, or even broadly “spiritual” or “psychological.” These relationships are forged at the molecular level and demand new approaches to conservation and care.

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INTRODUCTION

Plasticity against Plastic

Since 1995, a collection of preserved human cadavers has been circulating around the world. The brainchild of Gunther von Hagens, a medical doctor and self-professed artist, *Body Worlds* is a travelling exhibition displaying the human anatomy through a process of plastination, a preservation method Dr. von Hagens patented in 1977 while at the University of Heidelberg. Human specimens, referred to as "plastinates," are embalmed through a chemical concoction of silicone rubber, polyester, and epoxy resin, which renders them pliable and able to hold a pose.[1] Frequently inspired by woodcuts and engravings from sixteenth and seventeenth century anatomical treatises, Dr. von Hagens's human taxidermy restages images in plasticized tableaux vivants. The "flayed man," for instance, holds his complete dermal envelope similarly to the work of Roman anatomist Juan Valverde de Amusco. In the sixteenth century image, the "muscle man" holds up his discarded skin as though it were an elastic mask that was peeled off to reveal the anatomy underneath. The image is the key to Dr. von Hagens's macabre venture, where the bodies on view are rendered anonymous and therefore universal through the removal of the skin—the site of individuality and visible racial difference.

The popularity of *Body Worlds* has inspired a copycat competitor exhibition titled *Bodies…the Exhibition*, which debuted in the year 2005. Whereas Dr. von Hagens claims that each of the human specimen in *Body Worlds* were voluntarily donated, *Bodies…the*

[1] J. T. H. Connor, "Exhibit Essay Review: "Faux Reality" Show? The "Body Worlds" Phenomenon and Its Reinvention of Anatomical Spectacle." *Bulletin of the History of Medicine* 81, no. 4 (2007): 848-62.

Exhibition is even more ethically dubious. The bodies on view were once men and women belonging to the extensive population of unregistered "floating people" people in China. When they died, no one came to claim them. These unclaimed, unburied, and unmourned subjects were then commodified as examples of medical knowledge and visual spectacle, materializing a perversion of the Pygmalion myth. Whereas the ivory sculpture came alive in Ovid's narrative, Dr. von Hagens's project is a metamorphosis of the once-living human being into a docile plastic dummy. When the bodies arrived in the processing center in China, highly skilled, yet underpaid, Chinese technicians, carried out the intensive work of dissecting the bodies, as well as chemically converting them to plastic, and molding them into stylized positions from the history of art.[2] Plastination reconfigures the human body into a collection of discrete demarcated parts, which can be taken apart and rearranged for optimal visibility within the roaming exhibition, which costs $20 per ticket and features an extensive line of gift shop merchandise depicting the plastinates, as well as individual organs without bodies. In this synthesis of real flesh and bones, art, and technology, the body's plasticity, or its potential to change and experience the world through an interaction of sensation, is simulated through plastination.

Bodies…the Exhibition is operated by Premier Exhibition Inc., an Atlanta, Georgia-based company and is currently in residency in Las Vegas, Nevada—similarly to a popular celebrity or stage act. The show has yet to be mounted in an art museum but it is precisely under the label of "art" that the company sells the *Bodies* exhibition. What *Bodies* does reveal is that plastic synthesizes art, technology, and commerce into new

[2] Jose van Dijk, "Body Worlds: The Art of Plastinated Cadavers," *Configurations*, (2001), 9, 99-126.

configurations. The once-living human bodies, which are made ductile and posed to suggest animacy by resembling such iconic artworks as Auguste Rodin's *The Thinker*, further divulge the extent to which they simulate plasticity, which, though difficult to define, is considered intrinsic to both the human body and to art. Plastics are indeed everywhere, including inside the human body as prosthetics or, more surreptitiously, as synthetic estrogen disrupting the endocrine system. These materials have also infiltrated art: they appear in acrylic paint drips, any photograph exposed on celluloid film, as well as sculptures in such synthetics as latex, Plexiglas, and foam. Due to their proliferation, plastic materials now haunt the so-called plastic arts.

This dissertation explicates how plastic materials have transformed the practice, history, and conservation of art since the 1960s. Art history and criticism have yet to grapple with the relationship between the plastic arts and plastic, that most prosaic of materials. Plastic is a challenging material to think about because its many iterations can assume varying degrees of shape, texture, hardness, density, or color, and because the term "plastic" is used to denote the quality of being shaped or molded—a quality that was once regarded as specific to aesthetics, but is now a commercial and manufacturing process. Upon first glance, it may seem that art and plastic have little in common. Yet, plastic and art are imbricated in terms of value because both are context-dependent: art and plastic are containers for social meanings and cultural values. In this dissertation, I argue that artists are drawn to plastics precisely for the material imbrication with the social. Art objects featuring synthetics exist on the same continuum as discarded consumer plastic, and these materials open the artwork onto the world in unprecedented

ways, underscoring the work's participation within greater networks of economy and ecology. Plastic's physical and conceptual malleability allows artists to simultaneously negotiate its meaning as an industrial material, as well as art's perceived distance from the social.

The term 'plastic' is prominent in the history of art. Its etymology traces to the Greek *plastikos*, meaning "able to be molded or shaped." Renaissance humanists attributed greater agency to the term "plastic," using it to define the human as a 'shaper and fashioner of itself,' or *plastes et fictor*. In 17th century English philosophy, the adjective plastic qualified 'nature' to describe sentience in inanimate matter. Lesser known uses include the relationship between positive and negative space, as well as the agency of the object over the subject in the artistic act. The category of the "plastic arts" is imprecise, often employed interchangeably with the phrase 'fine arts' or used to refer to any art that manipulates volume. The English painter and critic Roger Fry, for instance, began deploying the term "plastic" in 1910 to describe an artwork with an emphasis on three-dimensionality to distinguish it from flat pattern.[3]

Artists have formulated idiosyncratic definitions of "plastic" and "plasticity." Piet Mondrian coined the term "Neo-Plasticism" in 1918 to describe his ideal style of painting, which reduced color, line, and form to primary colors, the geometry of squares and rectangles, as well as straight, horizontal, and vertical lines. Mondrian believed that each genre of art, such as painting or music, had a distinctive plastic expression and that abstraction allowed him to arrive at a style of painting of "universal plastic means,"

[3] Christopher Reed, *A Roger Fry Reader* (Chicago, University of Chicago Press, 1996), 123.

suggesting that it revealed painting's essential quality.[4] German Conceptual artist Hanne Darboven later reworked Mondrian's modernist theorization of the 'plastic' in her installation *Cultural History 1880-1983* (1980-1983). As pointed out by art historian Emily Verla Bovino, Darboven had theorized gender as a "plastic value" throughout her writing and installations, deconstructing gender through its structuring elements of domesticity, administration, animality, and reproduction.[5] According to Bovino, Darboven reworked Mondrian's "plastic" to play a new kind of "gender game," in which the "plastic value" of gender offered a tensile structuring formula to her sculpture-objects and installations. Though neither Mondrian nor Darboven used plastic materials in their practice, the term "plastic" was crucial to each of their aesthetic theories. Whereas Mondrian employed the term "plastic" to theorize an abstract and universal art, Darboven used "plastic values" to explore the plasticity, as well as particularity, of gender performance. Bovino's research on Darboven aims to rescue the artist's use of "plastic values" from associations with synthetic materials by emphasizing its conceptual plasticity. Mondrain's and Darboven's different approaches to the "plastic" reveals that the term spans a dialectic between particularity and universality—a point that will be explored further in this introduction, as well as the dissertation as a whole.

The term "plastic" becomes less innocent when applied to artwork featuring plastic materials. These materials, as well as their industrial processes, have impacted social life and art making over the course of the 20th Century. In 1942, William Haynes,

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[4] Piet Mondrian, "Neoplasticism in Pictorial Art" in *De Stijl*, Volume 1, No. 8 (June 1918), 88-91.

[5] Emily Verla Bovino, "Plastic Values in Hanne Darboven's *Kulturgeschichte 1880–1983 (Cultural History 1880–1983*, *1980–83*)" presentation for *Plasticene: Material and Conceptual "Plastics" in the Practice, History, and Conservation of Art* panel at the College of Art Association 2019 annual conference in New York (February 2019).

an economist and historian of the US chemical industry, declared that plastics would have "more effect on the lives of our great-grandchildren than Hitler or Mussolini." He continued to state that "new materials" could "compel the course of history as greatly as any man."[6] Employed by the very industry he studied, Haynes' assertions are undoubtedly biased, yet they illuminate the stakes of the so-called Plastic Age: over the course of the 20th Century, plastic materials shaped social and economic relations, affecting human bodies and leaving a lasting imprint upon the environment—frequently without people's awareness. Artist and educator Thelma R. Newman would argue this point with more finesse in 1969 by observing that "plastics have created a silent revolution in our time"[7] and urging artists to engage with synthetic materials before the chasm between art and scientific innovation became insurmountable.

Critic Roland Barthes warned that plastic materials posed a threat to art and life soon after attending an industrial exhibition in France during the 1950s. He queued in line to enter a veiled stall, where a large, tabulated and oblong machine was on display. When the machine was turned on, a heap of greenish crystals entered the structure at one end, and emerged at the other transformed into a series of gleaming fluted pin trays. With its internal mechanism hidden from the viewer, the machine performed the spectacle of transmutation of a substance simultaneously mysterious and ubiquitous. Barthes' experience of the exhibition inspired him to write a short essay titled "Plastic," which he included in his study of mass culture and its language—the iconic *Mythologies*, first

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[6] Jeffrey L. Meikle, *American Plastic: A Cultural History* (New Brunswick: Rutgers University Press, 1997), 2-3.
[7] Thelma Newman, *Plastic as an Art Form* (Philadelphia: Chilton Company, 1964), 1.

published in 1957. In the essay, Barthes describes plastic as a set of enigmatic effects: plastic is "the very idea of infinite transformation" and "less an object than a trace of a movement;" it is at once the "very stuff of alchemy" and the "spectacle of its end products."[8] After noting that plastic nearly fails "to exist as a substance," Barthes disdains it as the least poetic of materials, yet warns of plastic's insidious ability to imitate the natural world until everything becomes artifice.[9]

Barthes raises aesthetic and political concerns in his text. His dismissal of plastic as the "least poetic" of materials reveals an anxiety over whether art making is even possible when everything—including the human body—is a work of artifice. Plastic's potential to imitate existing materials introduces a threatening new mode of mimeses for Barthes, in which one entity becomes dominant by rendering others obsolete rather than drawing two modes of representation into relationship. This imitative and substitutive quality achieves mimeses through a strategy of replication and accumulation. A synthetic plastic is produced in such qualities that it overwhelms and drowns out all other materials. Here lies the paradox of plastic. Simultaneously utopian and dystopian, plastic erases essential differences, which would suggest that all entities are now ethically equal. However, in replacing the "world" with one type of material, the danger is that this material landscape is only equal because it is homogeneous and *excludes* difference. In Barthes's imaginary plastic future, everything is equal because it is all the same, rather than offering a state of equality in which disparate entities can coexist.

[8] Roland Barthes, "Plastic" in *Mythologies*. Originally published in French in 1957.
[9] Ibid.

Jeffrey L. Meikle's *American Plastic: A Cultural History* offers a starting point for thinking through how plastic materials have impacted the cultural and aesthetic categories of the "plastic" and of "plasticity." Published in 1997, Meikle's study is a technological history and cultural analysis of America's "ambivalent relationship" with plastic.[10] On the one hand, as Meikle shows, the explosion of plastic materials in 20th century America brought with it the promise of "a malleable universe open to human influence," inspiring utopian desires to "shape the stuff of existence at a fundamental chemical level, to imbue it with properties, textures and colors unknown to earlier generations."[11] On the other hand, this optimism for "material transcendence" is contrasted with connotations of "wastefulness and superficiality."[12] At one point, Meikle describes plastic as inspiring "suspicion" that, despite its popularity, the material may actually reveal itself to be "shoddy."[13]Throughout the work, Meikle contrasts "a culture of plastic – fake, phony, ultimately unsatisfying" with "a culture of plasticity – exuberant, extravagant, and life-furthering."[14]

Given that the same group of materials inspires each category, these "two cultures" of plastic demand further articulation of how they relate to one another. Meikle's distinction of inert and disappointing plastic from that which is awe-inspiring and emotive seems to propose a binary between plastic that is aligned with life and that which is affiliated with artifice. Period sources reveal this binary to be a false one. One iconic example comes from the 1967 film *The Graduate*. In one scene, Dustin Hoffman's

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[10] Meikle,xiii.
[11] Ibid. p. 9.
[12] Ibid.
[13] Ibid., xiv.
[14] Ibid. p. 298.

character receives the following unsolicited advice from a smug Los Angeles businessman: "I just want to say one word to you—just one word—Plastics." "There's a great future in Plastics," he adds a moment later. This scene is often interpreted as marking the gap between a profit-driven older generation and the counterculture youth of the 1960s. This is a false opposition, both because baby boomers comprised the counter-culture movement and because "plastic" signified more in the postwar period than "artificial" or "superficial" to American audiences.

At one point in *American Plastic*, Meikle does describe the two cultures of plastic in terms of duality, rather than opposition. He writes:

> There was something about plastic's chemical artificiality, as Barthes implied, that evoked the permanence of death—a finality conveyed by the hard k sound of the word plastic. On the other hand, plastic promised material freedom, a malleable environment whose openness was evoked by the flowing c sound of plasticity. The duality ran through the American experience of plastic.[15]

Here, Meikle describes American ambivalence towards plastic materials as a duality, suggesting that the two cultures exist simultaneously even if they appear contradictory. People were as anxious about the plastic's synthetic chemistry as they were inspired by its plasticity. Meikle even goes on to suggest that plastic's duality can be pronounced in terms of language, by differentiating between the proper name, or category, of "plastic" from that of its quality of "plasticity." Stating that the hard "k" sound evokes "finality" marks a death toll for the term "plastic," which, as stated above, has a long history in the

[15] Ibid., 9.

plastic arts. The decision to name certain polymers "plastics" initiated a transformation to the concept of the "plastic."[16]

Meikle's duality of "plastic" and "plasticity" is most clearly defined in his discussion of artists working with synthetic materials during the 1960s. He cites Andy Warhol, Claes Oldenburg, Bruce Beasley, and Duane Hanson as artists "seduced by [plastic's] artificiality," but decides to focus his discussion on Les Levine, an Irish-Canadian-American artist.[17] Levine gained the nickname "Plastic Man" for his trademark white vinyl leisure suit, which he would wear to exhibition openings, as well as for creating immersive installations, or "environmental palaces," from Mylar, a polyester film, that were featured in such major exhibitions as the 1969 *Plastic as Plastic* show at the Museum of Contemporary Crafts in New York City [Figure 1 and 2]. Though the example of "Plastic Man" lends itself to a rich analysis of gender and the plasticity of masculinity during the 1960s—to connect to Darboven's notion of gender as a "plastic value," Meikle privileges Levine as an artist working with plastic materials precisely because he abandons them. Today, Levine is better known for his pioneering work with television and Portapak, a battery-powered, self-contained videotape analog recording system, rather than as Plastic Man, and Meikle suggests that this exemplifies plasticity's triumph over plastic. He writes:

[16] It is difficult to pinpoint when certain polymers gained the proper name "plastics." There are chemistry texts dating to 1928 that mention the term "plastic" to describe a type of materials. Historian of Science Colin Williamson assigns 1951 as the precise date when the word "plastics" was formally recognized by the British Plastics Federation and the British Standards Institute. What is likely the case that chemists and manufacturers used the word "plastic" as early as the 1920s but the average person did not know that different materials belonged under the umbrella of "plastics" until as late as the 1950s.
[17] Meikle, 231.

> Plastic Man's own process of elimination came to an end at just about the exact moment Levine dropped the last plastic sheet into the garbage can. He had already begun experimenting with video, a more ephemeral medium than plastic. Most of his subsequent projects fell under the headings of conceptual or information art. By 1976 he was referring to himself as a "media sculptor" an artist so obsessed with plasticity that even plastic was too intractable for his purposes.[18]

According to this narrative, plasticity is more aligned with ephemerality than with the malleable materials of plastics, and Meikle proposes that Levine achieved greater plasticity in his art making only after discarding synthetics in favor of video. Levine is a fascinating example because his transformation from "Plastic Man" to that of a "media sculptor" spans less than a decade, suggesting the late 1960s and the early 1970s marked a historical moment during which the concepts of "plasticity" and "plastic" were actively shaped and negotiated. Though Meikle does not focus much attention on art, it nevertheless holds an important place within his analysis of 20th Century American culture. Whereas the duality of plastic and plasticity may coexist in American culture and its ambivalent relationship towards synthetics, art appears as a domain within which plasticity must overcome, or transcend, the physical limitations of plastic materials. Significantly for this dissertation, Meikle's study identifies the late 1960s as the historical moment that art became the privileged site of articulating the "ambivalent relationship" between "plastic" and "plasticity." It is in the realm of art that the duality of plastic and plasticity appears most clearly as dialectic.

Just as the decision to name certain polymers "plastics" changed the concept of the "plastic," so too the infiltration of synthetic materials into art and life demand more

[18] Ibid., 241.

nuanced readings of the term "plasticity." Working at the intersection of continental philosophy, neuroscience, and genetics, French philosopher Catherine Malabou formulates "plasticity" as a thinking of change, transformation, mutability, and metamorphosis. Though Malabou admits that "plasticity's native land is the field of art" and links it back to the Greek *plassein*, meaning to mold, shape, fashion, or form, she argues that plasticity has come to exceed this origin.[19] In *Plasticity at the Dusk of Writing*, Malabou describes plasticity as "the style of an era," stating that plasticity is everywhere, currently pervading all areas of life and knowledge, from the scientific elaboration of the "neuroplasticity" of the brain, which changes and transforms throughout life, to the "plasticity of the genome" in the study of epigenetics.[20] In addition to plasticity's origin in "plassein," Malabou also demonstrates how the term "plastic" in French also strong evokes the words "plastiquer" and "plastiquage," which refer to bombs and bombing, and it also evokes plastic explosives.

Malabou's plasticity is both constructive and destructive; it entails the giving of—or taking of—form, as well as the exploding of form. Art's creative force and exploding plastic structure the dialectic terms of Malabou's plasticity. According to Malabou, the term "plasticity" is itself dialectical: "the plasticity of the word itself draws it to extremes, both to those concrete shapes in which form is crystallized (sculpture) and to the annihilation of all form (the bomb)."[21] Whereas Meikle's discussion of Levine's abandonment of plastics in favor of plasticity evoked a transcendence of synthetic

[19] Catherine Malabou, *The Future of Hegel*: *Plasticity, Temporality and Dialectic* (Oxfordshire: Routledge, 2005), 11.
[20] Catherine Malabou, *Plasticity at the Dusk of Writing: Dialectic, Destruction, Deconstruction* (New York: Columbia University Press, 2010), 1.
[21] Ibid., 23.

materials, Malabou's dialectic dissolves any form-content opposition by embracing the immanent possibility within form to shape, receive, and annihilate forms, as well as itself. After the invention of plastic materials, of which plastic explosives mark an extreme example, plasticity in art can no longer be purely creative—it also has the potential to destroy form.[22]

Malabou's thinking of plasticity as explosive renders it ambivalent. Philosopher Tom Sparrow stumbles upon this ambivalence while seeking to articulate a politics of corporeal plasticity in his book *Plastic Bodies*. Sparrow notes that plasticity's inherent ability to autodestruct may be analogous to Freud's death drive, which would suggest that the power of self-destruction "lies not in the plasticity of the brain but in something else inside of us," therefore requiring a further (psychoanalytic) elaboration.[23] Malabou evades psychoanalytic inquiry through the following examples: the brain that changes through its interaction with the world, as well as through neurodegenerative illness; the human genome that constitutes the building blocks of life and genetic disease; and polymer that may take the form of an explosive bomb or of latex gloves, which are ubiquitous in the medical profession, and allow for safer intimacy and care. Given that plasticity's explosive potential is what ultimately allows it to resist "fixity, sedimentation, and even conservatism," Sparrow chooses to overlook plasticity's tie to the plastic bomb

[22] Philosopher Tom Sparrow notes that plasticity does not fall into the categories of either "modern" or "postmodern." Seeking to articulate an account of corporeal plasticity, he writes: If it is at least plausible to claim that the modern account of embodiment is marked by the view that there is a substantial core or immutable structure to the body, whereas the postmodern account is characterized by a desire to see the body vanish into an anonymous field of desires, pleasure, and flux, then the concept of plasticity belongs to neither historical period. Tom Sparrow, *Plastic Bodies*, 190.

[23] Tom Sparrow, *Plastic Bodies: Rebuilding Sensation After Phenomenology* (London: Open Humanities Press, 2015), 228.

to instead emphasize the annihilation of form as a creative act.[24] Rather than sublimating plasticity's destructive potential, I propose that this dialectic is what makes plasticity so ambivalent, and any attempt to articulate a politics of plasticity must start with this uncertainty.

There is an emerging field of scholarship that focuses on destructive plasticity as it relates to the intersection of plastics and art. In her 2019 book *Plastic Capitalism: Contemporary Art and the Drive to Waste*, art historian and theorist Amanda Boetzkes examines the widespread trend to visualize waste in contemporary art. Approaching art as constitutive of an ecological consciousness, Boetzkes argues that the appearance of plastic materials in art reveals its imbrication with the oil industry. Boetzkes writes:

> The conspicuous and increasing appearance of plastics in the contemporary art world since the 1960s joins it to the global oil industry, not simply at the level of a material causality but one of many processes by which the oil industry territorializes planetary life.[25]

Boetzkes's is correct to note a link between museums and the oil industry both because synthetic plastics contain petrochemicals and because the industry has—and continues to—sponsor art exhibitions. However, an analysis of art featuring synthetics without taking account of how artists engage with conceptual and material plasticity leads to a number of reductions. The logical conclusion of Boetzkes's argument is that any artwork featuring plastic would illustrate the visibility of the oil industry, a position that limits art to a representation of petrocapitalism. Similarly to the human specimen from *Body*

[24] Ibid., 229.
[25] Amanda Boetzkes, *Plastic Capitalism: Contemporary Art and the Drive to Waste* (Cambridge, MA: MIT Press, 2019), 184.

Worlds and *Bodies…the Exhibition*, who are molded to evoke the plasticity of art and the body without the potential to give form, artists would be impacted by the oil industry without the potential to resist, and therefore to shape, the entanglement of art, technology, and commerce that they experience. Additionally, Boetzkes's mention of the 1960s as origin of the art world becoming plasticized suggests that the very decade that people of color and women gained greater access to art making and exhibiting coincided with the imbrication of art with the oil industry. This critique comes at the risk of erasing the social movements of the 1960s—movements that have yet to realize their political potential.

Art historians focusing on the 1960s are just starting to consider the nuances of plastics as historic materials, though these projects rarely take plasticity into account. Recently, Danielle O' Steen has written a dissertation on the relationship between American artists and the plastics industry during the 1960s. Her analysis of Eva Hesse, for instance, focuses on her collaborations with Aegis Reinforced Plastics in New York. Whereas previously scholarship on Hesse often privileges the artist's bodily presence in discussions of her works, O'Steen's research positions Hesse as an innovator of plastic fabrication.[26] Built through casting and layering the raw, pearly-white plastic, Hesse's sculptures on view in her 1968 solo exhibition at the Fischbach Gallery, entitled *Chain*

[26] Danielle O' Steen, "A Plastic Presence in Eva Hesse's 1968 *Chain Polymers*" for *Plasticene: Material and Conceptual "Plastics" in the Practice, History, and Conservation of Art* panel at College of Art Association annual conference (February 14, 2019), New York, New York.

Polymers, were filled with air bubbles, rough ridges, and uneven textures, carrying surfaces that were unexpected for Fiberglas production.

This dissertation reexamines the legacy of the 1960s artists exploring plastics in terms of the dialectic of plasticity. Due to plasticity's ambivalence, I am especially interested in how artists transform that which is aligned with "the culture of death" to reanimate its inherent creative and relational potential. Each of the artworks discussed in this dissertation feature synthetic, manufactured, or plastic materials but it would be reductive to say that they are about the emergence of the petrochemical industry. Instead, I aim to reanimate how the unprecedented malleability of the materials allowed artists to explore such "plastic values" as the social, gender, intersectionality, queerness, and contamination. Each of the case studies is selected precisely because the artworks elude art historical categories: Naum Gabo's employment of plastic was only declared quintessentially "modernist" during the 1960s; Richard Hamilton's tabular paintings featuring detachable synthetic body parts resist the classification of Pop Art; and Ree Morton's interest in the medium-specificity of Celastic along with its emotive potential positions her "everywhere and nowhere" in the history of Installation art.[27] A closer look at the artists' engagement with plastic materials reveals how the work disrupts, or explodes, established hierarchies as it gives form to new articulations of desire and sociability. Central to Malabou's thinking of plasticity, is the notion of a future, and it is here that the dialectic of plastic art and exploding plastic reveals the stakes of this dissertation. According to Malabou, "the form or structure of thought is both a specter of

[27] Abigail Shapiro, "Ree Morton and Feminist Installation Art: 1968 – 1977" PhD Dissertation, McGill University, Montréal, 2017.

its history and an image that is not yet born."[28] Revisiting the 1960s and the 1970s, a historical moment that included a greater access to the arts and to plastics, allows a reanimation of the liberatory politics of the period, as well as a reimagining of "plastic art" in terms of the dialectics of plasticity.

Before delving into a breakdown of the chapters, it is necessary to define what plastics are in order to clarify the material and conceptual possibilities they offer artists. At the molecular level, plastics are polymers, a word meaning "of many parts," and appear as long chains of repeating molecules. Plastics are synthetic materials, meaning that they are created through the combination, or synthesis, of multiple smaller building units. The polymers used for plastics are produced by polymerization, or a reaction in which individual monomers, or small molecules, synthesize into a long chain. Monomers are most often encountered as gases or very light liquids. As monomers undergo polymerization and become increasingly complex polymers, their molecular weight and viscosity increase until solidifying into a gum or solid mass.

The term "synthetic" can be misleading because it welcomes connotations with artifice and the inorganic, yet plastics are considered organic because they contain carbon, the building block of life on Earth. Plastics, therefore, share a carbon-base with all other life forms on Earth, including plants, animals, and humans—all of which are studied under the umbrella of Organic Chemistry. While all plastics are polymers due to their molecular structure, not every polymer is a plastic. DNA, for instance, is made up of

[28] Malabou, *Dusk of Writing*, 52.

many parts, which identifies it as a polymer, but it is not a plastic. What distinguishes a polymer as a plastic is its ability to be molded.

As long as a polymer is carbon-based, it remains organic regardless if it is naturally occurring or man-made into a semi-synthetic or fully synthetic material. Here, a new definition of "synthetic" appears. The technical difference between naturally occurring and synthetic plastics is the length of their polymer chains, yet, in practice, the term "synthetic plastic" designates a polymer that is created through human manipulation. It is man's intervention that gives rise to the giant molecules of synthetic plastic.[29] To illustrate this distinction, it is helpful to consider the example of early plastic. Cellulose, a material that makes up the cell walls of plants, is a readily available and naturally occurring polymer. In 1869, the American inventor John Wesley Hyatt created Celluloid by treating Cellulose with camphor, a solid solvent.[30] Hyatt's manipulation of a naturally occurring polymer resulted in a semi-synthetic plastic: a material with increased malleability when heated and a hard, shiny, durability when compressed into a mold and cooled. The term "semi-synthetic" identifies Celluloid as a man-made material that begins with a naturally occurring polymer.

As chemical science improved, natural polymers were no longer needed as raw products for the creation of plastic. In 1907, Leo Baekeland invented Bakelite, the first fully synthetic plastic, meaning that it does not feature a polymer structure found in nature. Derived from fossil fuels, rather than plant or animal sources, Bakelite comprises

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[29] This is to distinguish synthetic plastics from the semi-synthetic plastics with a natural polymer backbone.
[30] Meikle, 11.

phenol, an acid resulting from coal tar, and formaldehyde from wood alcohol. Ushering in the new category of synthetic plastics, the invention of Bakelite revealed that carbon atoms are the integral building blocks of plastics—it does not matter where the carbon comes from or if the entire reaction is manipulated within a laboratory. Since the early 20th Century, chemists have turned to petroleum and other fossil fuels as plentiful reservoirs of carbon atoms to create unprecedented materials by replicating and accumulating novel arrangements of molecules.

These modern plastics are generally divided into two categories based on their material behavior: thermosetting materials, or thermosets, and thermoplastics, which are more often used in art making and will be the focus of this dissertation. Thermosetting plastics cure, set, or harden into a permanent shape. Their curing is an irreversible chemical reaction known as cross-linking, in which the polymer chains form a rigid, grid-like pattern. This class of plastics is characterized by their hardness and durability because the materials have an extremely high resistance to heat. The early synthetic plastic Bakelite is an example of a thermoset. Searching for a substitute for shellac, a naturally occurring material used for electrical insulation, Baekeland created Bakelite, a plastic that functioned as a good insular by exhibiting durability, heat resistance, and suitability for mass production.

Thermoplastics, meanwhile, do not cure or set under heat as do thermosets. They merely soften or melt when heated to a flowing state, and, under pressure, they can be forced or transferred from a heated cavity into a cool mold. Upon cooling in a mold, thermoplastics harden and take the shape of the mold. In general, thermoplastics are less

dimensionally and thermally stable than thermosets. Synthetic latex is one example of thermoplastic: a latex suit will stretch and contract to hug the contours of the body to give the effect of a second skin, and will melt when exposed to fire. When used as paint, latex will expand and contract according to heat and in response to the material support, or body, of a canvas. Thermoplastics are especially susceptible to thermal aging, which causes eventual degradation of materials and leads to conservation issues.

Plastics are named to emphasize their physical plasticity. In terms of physics, plasticity describes the general property of a material to irreversibly deform without breaking. In the case of plastics, the length of polymer chains and the patterns in which they are arranged make the polymers strong, lightweight, and flexible. These molecular arrangements allow plastics to become pliable and easily shaped when exposed to heat. Plasticity occurs to such a degree within plastics during their softened state that the term "plastic" is used to emphasize this ability. According the conceptual parameters mapped out by physics, plasticity is a state of limited duration during which a material undergoes formal change without breaking. Thermoplastics also have a "plastic memory," which is a tendency of a material that has been stretched due to heat to return to its original shape when cooled. This process of stretching under heat and "remembering" when cooled can happen repeatedly in the same material. Thermoplastics, therefore, extend the limited temporality of plasticity through their plastic memory. Extreme heat and cold, as well as changing atmospheric conditions, cause thermoplastics to repeatedly expand and contract.

Since the 1960s, cultural anxieties over plastic materials bear striking resemblance to those concerning the homogenization and disposability of global contemporary art and art history. Plastic's ability to become anything could theoretically reduce everything to nothing by dissolving all difference. What is at stake in the spread and accumulation of plastic is the dissolution of context, particularity, and history. Drawing on polymer chemistry, political theory, and philosophy, I distinguish between the process of becoming plastic and the movement of plasticity. Observing that plastic materials feature replication at the molecular level and accumulate into overwhelming piles of mismanaged waste at the global scale, I propose that "becoming plastic" is an operation of sameness that may be used to establish material and conceptual hegemony. Plasticity, meanwhile, is a movement marked by coexistence, difference, and the ecology of recycling.

This dissertation considers the history and aesthetics of plastics by exploring how artists working during the 1960s, the decade of artworks and art exhibitions dramatizing plastics, intervened within the capitalist logic of the Plastic Age. Focusing on the case studies of Naum Gabo's replicas, Richard Hamilton's tabular paintings featuring plywood body parts, and Ree Morton's development of installation art through the use of the synthetic Celastic, I examine how plastics became the privileged materials for articulating changing spatial and political dynamics to 20th century viewers.

My methodology draws on philosophy and material science to arrive at the dialectics of plasticity. In terms of physics, plasticity is a temporally specific event where a material transforms under the pressure of its environment without breaking. Plastic

materials gained their name due to their high potential for plasticity, but plasticity is a phase, rather than the permanent quality, of plastic. My formulation of plasticity is also indebted to the work of philosopher Catherine Malabou, who theorizes plasticity as an operation that is both positive and negative, meaning that it generates and explodes form. Given that Malabou's discussion of plasticity includes numerous, and sometimes contradictory, formulations, I aim to draw out this inherent ambivalence of plasticity. Due to the uncertainty of plasticity, I am especially interested in how artists transform that which is aligned with "the culture of death" to reanimate its inherent creative potential. Building upon the physics of plasticity and Malabou's philosophy, I define plasticity as a force that resists accumulation, sameness, and rigidity.

In this dissertation, I argue that artworks featuring plastic are privileged sites for observing, as well as distinguishing between, the process of becoming plastic and the force, or process, of plasticity. Furthermore, I argue that plasticity within art—the origin of plasticity's creative potential—offers a mode of resisting hierarchies, as well as such seemingly hegemonic forces as the oil industry. The case studies in the dissertation reveal that the plastic commodity's conceptual sameness is not as stable as it may seem—it is always on the brink of an explosion and can open up onto a proposition of an alternative, of something other than itself.

The first chapter explicates why the material and concept of "plastic" matters for art criticism. During the 1960s, modernist critics debated how to distinguish artwork from the everyday objects at a time marked by dynamic and intersectional social movements. Rereading Michael Fried's "Art and Objecthood" while thinking about plastic materials

and social plasticity, a term developed in this chapter, I argue that Fried posited a mode of criticism that demanded artwork, and therefore artists, to posit their own authenticity—a quality that is both inapplicable to plastic materials and to the people whose identities are queer, intersectional, and impossible to contain within a singular category.

The case study of Naum Gabo's 1925 original and 1967 replica of *Construction in Space with Balance on Two Points* is the focus of the second chapter. As a continuity of the themes introduced in the previous chapter, I contextualize Gabo's turn to plastic materials within his interest in the theatre and shared public space, as well as dismantling the distinction between subject and object. Delving into Gabo's debate with the Philadelphia Museum of Art over conservation efforts of his work *Two Cones*, I argue that Gabo's insistence on using early plastics from his own collection reveals that materials held significant meaning for the artist. Focusing on plastic materials within Gabo's constructivist work resists readings of these sculptures as purely conceptual and dematerialized. Whereas Gabo wanted to retain the particularity of his materials, the museum conservation decision to replicate his sculptures in the modern plastic of Plexiglas created a suture between the legacy of the Russian Revolution and the Western arena of the Cold War during the 1960s. This suture emphasized technological innovation over Gabo's interest in sociability and the theater, and resulted in the canonization of Gabo as a modernist artist interested in transcending physical reality. This chapter aims to reanimate the significance of early plastics for Gabo, as well as the artist's interest in the social.

In chapter three, I turn to the work of Richard Hamilton. During the late 1950s and early 1960s, Richard Hamilton observed American consumerism from a distance to create tabular paintings, which often featured bodies, assembled from pieces of plywood, whose gender is both nondualist and malleable. Drawing on queer theory and transgender studies, I argue that the manufactured components within Hamilton's tabular paintings underscore the plasticity of gender, as well as its ongoing potential to resist hierarchies and hegemony.

Ree Morton's work in Celastic, a plastic impregnated cloth, offers the final case study. In chapter four, I observe how Morton used Celastic to create sculptures featuring language, and argue that she became increasingly interested in animating the plasticity of language in such works as the 1975 *Devil Chaser*, which is based on the Neltje Blanchan's book *Wild Flowers Worth Knowing*, a 1917 manual notable for its inclusion of the poetic and talismanic properties of plants. Celastic is a material frequently used in the theatre, as well as in taxidermy, and Morton explored its multifarious associations with performance, play, animacy, melancholy, and death by creating language sculptures that resist unified readings. This chapter reveals that the terms of art criticism of the 1960s precluded narrative, sentiment, theatricality, and the decorative—qualities that are frequently gendered as feminine. Tracing Morton's engagement with her chosen texts and the material of Celastic emphasizes the critical import within—rather than in spite of—her feminine flourishes.

Finally, in the conclusion, I consider how the artworks featuring plastic demand unprecedented levels of care. Conservation issues appear in each of the three case studies

of my dissertation, and the conclusion reflects the significance of care in maintaining the movement of plasticity. Plastics also introduce the issue of toxicity because synthetics contaminate their surroundings as they decay. The relationship between viewers and artworks is no longer purely aesthetic, or even broadly "spiritual" or "psychological." These relationships are forged at the molecular level and demand new approaches to care and conservation, as well as letting go.

CHAPTER 1

Plastic Criticism and Social Plasticity

During the 1960s, as people worked together to organize marches for domestic civil rights and protest military involvement abroad, artists experimented with such new forms of practice as performance, creating interactive installations within the gallery space, and exploring the hybrid intersections of such specific mediums as painting and sculpture. Whereas the multiplicity of these artistic practices reflected the dynamism of the social sphere, art discourse reflected a different narrative—one that was drastically more homogeneous. During the 1960s, modernist critics debated the terms of art in texts that would define and categorize these nascent aesthetic movements. This is not to dismiss these debates as inconsequential: for the modernist critic, what was at stake was nothing less than the survival of art and its potential to offer a transformative viewing experience—one that could even communicate democratic ideals. Even as the stakes of both art and life intensified, the boundary between them became increasingly demarcated. Art criticism became increasingly professionalized at the precise moment that more people gained access to political agency, as well as the art world, which had previously been withheld from them. Their presence rendered a desire for a politic that was diverse and intersectional, meaning the interconnection of such social categories as race, gender, sexual orientation, ableism, and class, as well as malleable, suggesting that it could transform and take new form.

In this chapter, I examine the incongruity between 1960s art criticism and emerging political movements by closely reading Michael Fried's 1967 essay "Art and

Objecthood" and excavating the social within this influential text. Whereas Fried aimed to exclude the social from the category of art, the critic's disdain for theatre and theatricality, as well as his anxiety towards artworks that elicit confusion between the categories of subject and object, reveal an apprehension towards an art world open to social and aesthetic diversity.

As art historian Christa Noel Robbins notes, Fried's "Art and Objecthood" is not just an influential text within the discipline of art history, it has "initiated a discursive practice,"[31] which, according to Michel Foucault, characterize authors who do not simply write texts but who "produced something else: the possibilities and rules for the formulation of other texts."[32] In examining how "Art and Objecthood" has structured the rules and possibilities of art discourse, I argue that modernist criticism became professionalized through the exclusion of plasticity, a conceptual category that dissolves hierarchy and professionalization, and which is profoundly linked to the social, here defined as the radical and transformative encounter between diverse people. Excavating the social within Fried's text reveals the extent to which the formalist critic established his framework through the suppression of the social, and, given the impact that this text has had on the emergent discourse surrounding such postmodern art movements as Post minimalism and Installation Art, raises questions regarding how intersectionality and queerness, or non-binary desire and modes of being, have remain systemically excluded from critical discourse.

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[31] Christa Noel Robbins, "The Sensibility of Michael Fried," in *Criticism*, 60:4 (Fall 2018), 431.rt

[32] Michel Foucault, "What Is An Author?" in *The Foucault Reader*, ed. Paul Rabinow (New York: Pantheon Books, 1984), 114.

Any effort to historicize the end of the 1960s demands a description of the numerous, dynamic, and intersecting social movements that animated individual lives and global politics. In the United States, the Civil Rights movement coincided with students protesting military involvement in Vietnam, as well as the rise of feminism and the gay liberation movement. Despite each of these movements gaining their own distinctive name to suggest a uniform identity, the reality was that each of these group actions was diverse: participants in these social movements often embodied the intersections of racial, gender, and class categories, as well as sexual orientation, and were therefore motivated to gain liberation from the very political system that reduced people into alienated categories. On August 28, 1963, more than 200,000 people of color, along with their white allies, peacefully congregated in Washington D.C. to demonstrate their demand of civil rights legislature and job equality for all.[33] The feminist group New York Radical Women organized a demonstration at the 1968 Miss America Pageant in Atlantic City to protest the pageant's racism and commercialization.[34]

Perhaps Sylvia Rivera, a Latina American gay liberation and transgender rights activist, who energized each of these movements, best exemplifies the intersectionality and plasticity of the social during the 1960s. Rivera participated in the Civil Rights Movement, protests against the Vietnam War, and second-wave feminist organizing, before she began throwing bottles in protest at police officers, who had stormed the

[33] "March on Washington for Jobs and Freedom," in *The Martin Luther King, Jr Research and Education Institute, Stanford* (August 28, 1963), Accessed June 5, 2019. https://kinginstitute.stanford.edu/encyclopedia/march-washington-jobs-and-freedom.

[34] Roxane Gay, "Fifty Years Ago, Protesters Took on the miss America Pageant and Electrified the Feminist Movement," in *Smithsonian* (January 2018), June 5, 2019, https://www.smithsonianmag.com/history/fifty-years-ago-protestors-took-on-miss-america-pageant-electrified-feminist-movement-180967504/.

Stonewall Inn in New York City on June 28, 1969.[35] Along with activist and drag queen Marsha P Johnson, Rivera's defiance sparked a riot, an eruption of the social that gave rise to the formal articulation of the gay liberation movement, and which continues to live on—as well as mold towards greater inclusion—through annual Pride celebrations across the world.

These liberatory ruptures were not unique to the United States. On November 1968, a mass student movement emerged in Pakistan protesting the military dictatorship of then president Ayub Khan. Unified in its shared goal of protesting corruption and gaining civic rights, this movement was also marked by vast differences due to its class solidarity. As the protest gained momentum, sex workers marched alongside white-collar employees and lawyers.[36] Across the world, everyday people took part in marches, sit-ins, riots, and protests to express their shared accountability for atrocities waged by exploitative governments, even if they were taking place at a distance. On May 3, 1968, international demonstrators protested the participation of Rhodesia and South Africa—two countries with apartheid and white minority rule policies—in the Davis Cup, a tennis competition held in Båstad, Sweden.[37] Such organized actions, as well as the fact that they coincided across the world, reveal that the very parameters and potential of the social were changing during the 1960s.

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[35] Silvia Rivera, "Our Armies are Rising and We Are Getting Stronger" in *History is a Weapon* (June 2001) Accessed June 5, 2019. https://www.historyisaweapon.com/defcon1/riverarisingandstronger.html.
[36] See for instance: Pakistan Labor Party, "Past, Present and Future of Left Movement in Pakistan" in Europe Solidaire Sans Frontières (19 September 2005).
[37] For more information, please see: Håkan Thörn, "Sports as Politics: The Battle of Båstad and 'Stop the 70s Tour'" in Anti-Apartheid and the Emergence of a Global Civil Society, St. Antony's Series (Pargrave Macmillan: London, 2006), 142-157.

Brazilian political theorist Roberto Mangabeira Unger has described the 1960s as a historical moment of active "social plasticity," a term he defines as "the quest for collective wealth and power," which "requires a cumulative movement toward greater plasticity in the organizational and institutional setting of production and exchange."[38] According to Unger, the "imperative of (social) plasticity," or its force, requires that advances in productive powers are achieved through "the subversion of fixed plans of social division" and hierarchy.[39] Unger's formulation of social plasticity as a force that subverts hierarchies and fixed categories suggests that the power of plasticity lies precisely in a radical embrace of intersectionality. Building upon Unger's work, which broadly focuses on the macro level of international politics, I treat "the social" as referring to a grouping of people, whose sexual, racial, class, and gender differences are precisely the potential of their plasticity, as well as claim to power, and I also extend it to the interpersonal level of the radical—and transformative—encounter of an art viewer and an art object that challenges any formulations of subjectivity as autonomous. It is my claim that art making of the 1960s was deeply embedded within this active social plasticity and that the intimate encounter of a gallery visitor and an artwork could initiate the "imperative" of plasticity—its dissolution of such fixed hegemonic categories as the gender binary or the political rhetoric of "us versus them" during the Cold War rhetoric.

Social plasticity gained visibility through the collaborative and ephemeral actions of the march, demonstration, rally, protest, sit in, and the riot. To observe a protest from a distance is to witness numerous individual bodies moving as an ever-changing form,

[38] Roberto Mangabeira Unger, *Plasticity Into Power: Volume 3* (London: Verso, 2004), 208.
[39] Ibid., 208.

whose contours expand and contract as people interact with their environment. Participating in a protest places one in the midst of a cacophony of voices, gestures, expressions, and affects. An individual participant may initiate a chant, call-and-response, dance, or choose a direction to travel, therefore affecting the overall shape, or rhythm, of the protest, but this malleable form requires multiple participants. Social plasticity, therefore, is both inherently collective and dependent upon individual action: the particular genre of the sit-in or the march impacts individual behaviors; participants, meanwhile, are the necessary components of these genres and their malleability. These genres appear drastically different from the grid-like order of a parade choreographed to celebrate a totalitarian ruler or the pure chaos of anarchism. Social plasticity emerges when multiple individuals contribute their perspectives and accept shared accountability for the overall organization of the action. Each participant contributes to an open-ended process of the giving and receiving of form within social plasticity.

As protests became more common and media outlets increasingly broadcast images of social plasticity during the 1960s, artists began exploring the aesthetics of soft forms and malleability. During the fall of 1966, art critic and curator Lucy Lippard organized the group exhibit “Eccentric Abstraction” at the Fischbach Gallery in New York City. Featuring such artists as Louise Bourgeois, Eva Hesse and Bruce Nauman, the group exhibit celebrated the body, imagination, the abstract-erotic, and touch [Figure 3]. Lippard described the main motifs of “Eccentric Abstraction” as “change, flexibility

[and] exotic materials."[40] The exotic materials that Lippard alluded to were plastics, new synthetic materials only recently available to artists. Indeed, plastic even featured in the promotion material for "Eccentric Abstraction": the exhibition flyer was printed on a pale pinkish square of slippery vinyl, which introduced an unexpected and tactile element to the announcement.[41] The receiver of the flyer became viscerally aware of their own body, as well as the act of touch, while holding the piece of vinyl. Holding the plastic invitation, the addressee of the flyer created an intimate connection with the synthetic material featured in 'Eccentric Abstraction" before stepping into the exhibition space.

The artists featured in "Eccentric Abstraction" used plastics to explore change and flexibility as a sculptural motif while also elicited visceral reactions from viewers through these soft and sensual materials. Gary Kuehn's contribution to "Eccentic Abstraction" was the 1966 *Melt Piece*, which staged the transformation of matter [Figure 4]. The two-part sculpture dramatized the ability of fiberglass, a plastic-reinforced glass, to hold a shape evoking malleability and change. *Melt Piece* presents a form that is both solid and melting into liquid. Not quite fluid and far from free flowing, this latter phase of matter does retain a shape even as it gains malleability, revealing the formal difference between plasticity and liquidity. Neither one nor the other, the sculpture suggests that states of matter exist on a spectrum. Hesse contributed two pieces to "Eccentric Abstraction": *Several*, a 1965 sculpture of acrylic paint and papier mâché over seven balloons with

[40] Lucy R. Lippard: A Discussion with the editor, December 1969 (Interviewed by Ursula Meyer)', transcript, Box 32, Lucy R. Lippard Papers, Smithsonian Institution, Archives of American Art, Washington, D.C.

[41] The pink fleshy vinyl announcement is mentioned in Lucy R. Lippard, *Eva Hesse* (De Capo Press: New York, 1976).

rubber cord, and *Metronymic Irregularity II*, a 1966 work comprising of painted wood, sculpmetal, a commercially produced plastic-infused material, and covered wire [Image 5 and 6]. In *Several*, the bundle of rubber balloons, which Hesse animated with her own breath—appear simultaneously unified through their singular point of suspension, as well as free to hang loose and occupy their own distinctive space. Hesse's decision to connect the three square wood panels through the wavy lines of wire and malleable sculpmetal in *Metronymic Irregularity II* creates a reverberating visual rhythm of motion evocative of social plasticity. The hybrid identity of *Metronymic Irregularity II* as a sculpted form and wall-mounted painting suggests that malleability and movement may enliven the painted panel—a traditional ground of art—through interconnection, or intersectionality.

As she was organizing the exhibition, Lippard wrote an essay—also titled "Eccentric Abstraction"—that was published in *Art International* in November 1966 and served as an accompaniment to gallery show. Lippard began her essay with a discussion of Oldenburg's contribution, inviting viewers to imagine themselves immersed in Oldenburg's "gleaming, flexible blue and white vinyl bathtub."[42] The work Lippard had in mind was Oldenburg's 1966 *Soft Bathtub (Soft Tub)*, which comprises of Vinyl, reinforced sheets of polyurethane, painted Liquitex, wood and rubber [Figure 7].[43] Though Lippard describes Oldenburg's *Bathtub* as a "womb," encountering a soft sculpture in the shape of a bathtub hanging from a wall welcomes more ambivalent associations. The artist's decision to orient the bathtub vertically transforms the bathroom

[42] Lucy Lippard, "Eccentric Abstraction" in *Art International,* Lugano, Vol. 10, no. 9, (November 1966), 28.

[43] This work is in the private collection of Mr. and Mrs. Roger Davidson, who live in Toronto.

feature into a large, sagging orifice—an entity as enticing as it is repulsive—with he positioning of the water faucet and temperature knobs evoking male genitalia. Oldenburg would later describe his soft sculptures as "sticky with associations,"[44] a phrase positing his artwork a messy knot of relationships and meanings, as well as the nexus of myriad unconscious motifs and affects. Since Lippard's essay formed the accompaniment to the "Eccentric Abstraction" exhibit, the curator's invitation to imagine oneself inside of Oldenburg's bathtub serves as one entryway into the works on view. What would it feel like to imagine oneself slip into, and amongst, the malleable artworks alongside other gallery visitors in the semi-public space of the Fischbach Gallery in Chelsea, a neighborhood known for its cruising spots? Soft form and the "second skin" of fleshy plastic invoke associations sticky with desire. The artworks in "Eccentric Abstraction" offered an encounter for the viewer to become a participant in meaning-making, as well as an intimate collaborator within the exhibit's malleable form.

In 1967, the year following Lippard's "Eccentric Abstraction," Michael Fried published the essay "Art and Objecthood" in *Artforum*. Presented as a critical response to contemporary art, Fried makes a curious choice from the get-go: rather than engaging with the formal and conceptual malleability on view in "Eccentric Abstraction," Fried limited his attention to the artwork on display just down the hall from Lippard's group exhibition featuring women artists alongside male artists. A few paces away from the Fischbach, painter Ad Reinhardt curated the group exhibit titled "Ten" at the Dawn

[44] Claes Oldenburg, "The Soft Machines", published statement for the US representation at the XI Bienal São Paulo, May 1967, reprinted in Barbara Rose, Claes Oldenburg (New York: Museum of Modern Art, 1969), 193.

Gallery. Featuring Minimalist painting and sculpture by such artists as Donald Judd and Robert Morris, it was the "Ten" exhibit that served as stimulus for Fried's budding criticism.

In the remainder of this chapter, I illuminate Fried's explicit exclusion of theatre, or theatricality, as well as implicit exclusions of queerness and intersectionality posited through the text of "Art and Objecthood"—qualities that were on view in several artworks included in "Eccentric Abstraction." These categories of theatricality, queerness, and intersectionality are crucial to this dissertation because they are inherent to social plasticity, and each of these distinctive, yet ultimately overlapping, categories will be critically embraced in the following chapters. Fried's disavowal of theatricality reveals why Gabo's involvement with theatre productions, as well as his projects for public space, are largely omitted from the modernist art canon. I engage with queerness most directly in the Richard Hamilton chapter by arguing for the importance of plastic materials in Hamilton's tabular paintings of gender plasticity. Finally, the chapter on Ree Morton's use of Celastic proposes that her often-overlooked "environments" posit installation art as a genre of intersectionality.

Much has been written about Fried's critical position towards theatricality, with a lot of this scholarship focusing on "Art and Objecthood" in particular. Amy Newman's book on Artforum features an entire section dedicated to the essay and critic Robert Pincus-Witten argues that "'Art and Objecthood'" became the paradigmatic article to

understand."[45] Annette Michelson, meanwhile, states that the essay is "the most overcited, overvalued, overestimated piece that [Fried] has every produced."[46] Frequent citation of "Art and Objecthood" only underscores that the essay has initiated a discursive practice, and suggests that its influence continues shape art criticism. Examining the "rules" of this discursive practice, as well as historicizing it within a time period of dynamic social plasticity, as well as the plasticity of artistic practices, reveals that the stakes of engaging with 1960s art and criticism lies in the manner in which the reader values the social.

Just as is the case with a researcher, whose keen excavation of an artist's archive unearths a source print that results in a revision of the artist's process, previously overlooked archival information illuminates the terms of Fried's infamous rejection of Minimalism. There is a letter filed within the Philip Leider Papers at the Archives of American Art in Washington, D.C. that Fried wrote to Leider, his friend and then editor of *Artforum*, while working on a piece of writing that would eventually become "Art and Objecthood." In March 1967, Fried wrote: "I keep toying with the idea, crazy as it sounds, of having a section in this sculpture-theater essay on how corrupt sensibility is par excellence faggot sensibility."[47] A documentation of correspondence between friends, Fried's casual report on the progress of his essay includes a homophobic slur alongside a

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[45] Quoted in Amy Newman, *Challenging Art: Artforum 1962-1974* (Soho Press, 2003), 198.

[46] Ibid., 198.

[47] Michael Fried to Leider, Philip Leider Papers, 1962-1997, Archives of American Art, Washington D.C. The entire passage reads: "I keep toying with the idea, crazy as it sounds, of having a section in this sculpture-theater essay on how corrupt sensibility is par excellence faggot sensibility and how even if the faggots didn't kill Kennedy (and I love this guy Garrison for insinuating that they did) they ought to be kicked out of the arts and forced to go to work on Wall Street or something."

sentiment that this group of people, whom he discriminates against based on their sexuality, "ought to be kicked out of the art world."

Robbins is the first scholar to analyze "Art and Objecthood" in light of this archival material. In her 2018 article "The Sensibility of Michael Fried," Robbins warns against the impulse to dismiss this letter as merely anecdotal by citing Jane Gallop's work on the anecdote as the "occasional" or "the event, the moment," or the lived space, wherein theory first takes form.[48] "When Fried deploys homophobic language in an explication of his theoretical intervention into contemporary art's most recent developments, the statement needs to be regarded as a crucial piece of evidence of how everyday habits of thought actually shape the official discourse of art history," writes Robbins.[49] Scholars such as Amelia Jones, Douglas Crimp, Caroline A. Jones, and many others have long argued that the history of modernist art is a history of exclusions. Fried's letter to Leider provides empirical evidence of a critical project that is predicated on the omission of different publics and desires.[50] Though Fried's homophobic language does not appear in the final draft of "Art and Objecthood," it begs the question as to why Fried creates his own sticky association between theatre and queerness at precisely the historical moment that gay and transgender activists are gaining visibility and feminist curators like Lippard invited viewers to imagine themselves inside of fleshy plastic.

In "Art and Objecthood," Fried formulates his derision of theatricality by honing in on Minimalist art, which he refers to as "literalist sculpture." Fried develops this

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[48] Jane Gallop, *Anecdotal Theory* (Durham, NC: Duke University Press, 2002), 5.
[49] Robbins, 430.
[50] Robbins, 430.

moniker by looking at the work of such artists as Donald Judd and Robert Morris, and by observing that Minimalism is often reduced to such basic geometrical forms as the cube or the rectangle, which are installed in the gallery space according to a serial manner where one component follows the other. In addition to his visual analysis of Minimalist work, Fried engages with Judd's and Morris's theoretical writing on what constitutes such contested terms as "sculpture," "object," "objecthood," and "specific object." Though a detailed engagement with Judd's and Morris's influential essays lies outside of the scope of this chapter, it is worthwhile to note that Judd's 1965 essay "Specific Objects" includes Oldenburg's soft sculptures. To complicate the matter further, Judd also discusses Yayoi Kusama's soft, phallus-covered domestic objects—objects that he helped her make. Judd's collaboration with Kusama, as well as his mutual interests with Lippard, reveals the relationship between Minimalism and Post minimalist as more malleable and porous, rather than progressive development of two demarcated art movements. Nevertheless, Fried's engagement with Judd's artistic practice is reduced to hard-edged Minimalist sculpture created by men.

According to Fried, the literalism of Minimalist art, or its literal engagement with an object, is ideological because its purported simplicity is a ruse. The steel cube, for instance, "poses" as literal even as it is actually presented for the viewer in a manner that veils its own staging. Fried thus argues that the steel cube is never just an object; it is something that the viewer must engage with, and it is this invitation for participation and the creation of personal associations that Fried finds problematic. Fried defines the relationship between the viewer and the Minimalist art object as one of "theatricality,"

and his chosen terms of "posing" and "staging" certainly evoke the theatre, but they also mean "falsehood." Within a theatre production, actors perform roles and the audience participates in a willing suspension of disbelief to enjoy the show. Fried's concern that Minimalisms so-called literalness is ideological suggests something different from the unspoken agreement between theater performers and the audience members. The critic seems concerned about artwork posing as something that it is not, as well as the potential embarrassment, or even threat, of falling for this illusion. Fried's letter to Leider may illuminate the critic's use of language here. Equating theatre with queerness, Fried's concern over an artwork "posing" and "staging" may reveal a social discomfort with people passing as something that they are not: as straight, when they are gay, or, more generally, as outsiders to Fried's formulation of the art world. To pose believably may even offer a seduction that can fool the critic. To return to the example of Oldenburg's vinyl bathtub, what if Fried imagines himself inside of it and discovers it to be syrupy with queer *associations*? Fried's association of theatre with queerness reveals that he dislikes art that ruptures the fixed binary of viewer and artwork, a relationship of power where the art object is subjugated to the beholder. Art's potential queerness may result in a destruction of this hierarchy, as well as the eruption of social plasticity within the privileged space of the art gallery or museum.

Fried's treatment of theatricality reveals "the possibilities and the rules" of a mode of criticism that continues to influence the analyses and treatment of art. In "Art and Objecthood," Fried pits Minimalist artists, such as Judd, Morris, and Toy Smith, against artists Anthony Caro and Frank Stella, whom Fried identifies as modernists. The

"compare and contrast" method is a staple of art historical analysis, harkening back to Wöllflin's nineteenth-century study on art from the Renaissance and the Baroque periods, but whereas Wölfflin's sought to articulate a shift in artistic vision over time, Fried contrasts Minimalism with modernism in terms of sensibility. For Fried, Minimalism emerges simultaneously with modernism and through the same historical development, but the two differ because Minimalism is a corruption of modernism. To identify one artist's work as a corruption of another's is to place a value judgment on art—and in extension, the artist—in terms of its morality. It is, of course, Fried who identifies this distinction, which suggests that it is the imperative of the modernist critic to uphold the morality of art, as well as demarcate possible corruption. Whereas Fried criticizes literalism, his decision to hone in on Minimalism stills elevates these artists over others—a critical gesture Fried performed by looking away from the artwork on view in "Eccentric Abstraction" to focus on those exhibited in "Ten." A possible takeaway for the art historian or art critic seeking to break away from the "rules and possibilities" introduced by "Art and Objecthood" is to look outside of Fried's—as well as one's own—canon of artists.

Fried is also specific about the source, or nature, of this corruption; he claims that minimalism responds "to the same developments" as modernist painting, but seen by a sensibility "corrupted or perverted by theater."[51] Theatre, therefore, is what corrupts and perverts modernism from the inside out like putrefaction. In addition to suggesting that theatre is what makes art immoral, Fried's enforces another moral judgment onto art. The

[51] Fried, "Art and Objecthood," 161.

verb "to pervert," along with its form as a noun, has been used to describe—and to prosecute—sexual behavior that has strayed from societal norms. The content of Fried's letter to Leider reveals that the critic's description of theater as that which perverts implied more than a desire to distinguish literalism from modernism. Fried's choice of language delineates "art" as a category that excludes deviance, and this exclusion has the potential to exclude artworks *as well as people* based on sexuality. One of the contradictions of "Art and Objecthood" is that art criticism has an impact on the material reality of people, including artists, art professionals, and different publics, even as it seeks to exclude the social from the category of art.

According to Fried, theatre does not just rot modernism from the inside, but also threatens art's very survival. In the latter part of "Art and Objecthood," Fried makes the claim that theatre and theatricality are "at war with art" through the following three propositions:

> 1. The success, even the survival of the arts has come increasingly to depend on their ability to defeat theatre
> 2. Art degenerates as it approaches the condition of theatre
> 3. The concept of quality and value—and to the extent that these are central to art, the concept of art itself—are meaningful, or wholly meaningful, only within the individual arts. What lies between the arts is theatre."[52]

Fried's language here is militant: claiming that theatre and art are at war while the United States was locked in an ideological standoff with the Soviet Union and engaged in a drawn-out, bloody conflict in Vietnam raises the stakes of art criticism while dismissing the influence of these conflicts on any analysis of art. Indeed, social and political realities

[52] These points appear in Fried's "Art and Objecthood" between 139 and 142.

are repeatedly sublimated throughout Fried's text into a vehement critique of theater. Explicating these three propositions reveals the stakes of Fried's critical project: his attempt to delineate the category of art from theater is one fundamentally hinging on the exclusion of social context and its contamination by difference.

For the first proposition, that the survival of the arts depends on the defeat of theater, Fried explains that this overthrow must occur by establishing a particular relationship between the artwork and the viewer. It is the artwork's posturing as simple that the critic finds so problematic and perverse. According to Fried, a steel cube appears to have been in the gallery all along, but the moment that a viewer steps into the gallery space its entire function appears to shift entirely towards the beholder. In contrast, Fried celebrates a modernist art that allows for "conviction," or a single and coherent reading of a work of art along the lines of a testable thesis, which also establishes a relationship in which the critic is the privileged subject of the art object. Theater, meanwhile, disrupts the very possibility of locating a stable meaning. Each viewer of theater brings with them different propensities, making the deliverance of any singular aesthetic judgment impossible. Jacques Rancière observed that the broadening and diversification of art publics posits the aesthetic experience in terms of engagement and desire over conviction. Rancière termed Fried's anti-theatrical stance as modernist "coherence," which is to say, the self-contained and autonomous art object that does not rely on the individual experiences of the viewers in order to obtain meaning and secure its value.[53] For Rancière, "coherence" signifies not just general autonomy of the work of art but an

[53] Jacques Rancière, "Notes on the Photographic Image," *Radical Philosophy* 156 (July/August 2009), 14.

autonomy achieved and signaled by the exclusion of the spectator. Here, coherence is achieved through the omission of the social, and is therefore by definition a tactic of exclusion.

In addition to the threat of diverse viewers participating in the rarefied real of art, Fried is concerned that the minimalist object's theatricality signals an interiority that will further elude the modernist critic's control. For Fried, the three-dimensional minimalist object functions as an anthropomorphic bodily analogue, an envelope or container that hints at a concealed "inner, even secret, life."[54] Whereas Fried values modernist art for its coherence in meaning and legibility under the critic's ideological conviction, he distrusts the motif of the steel cube in Minimalism because the sculpture "appears hollow" even if he cannot know this for certain.[55] This uncertainty undermines conviction and, perhaps even more shockingly for Fried, leads him to become aware of his own body. Fried writes, "'the entire situation' [of literalist sculpture] means exactly that: *all* of it—including, it seems, the beholder's *body*…everything counts—not as part of the object, but as part of the situation in which its objecthood is established and on which that objecthood at least partly depends."[56] Fried's choice to italicize "all" and "body" reveals a certain discomfort with encountering himself as a viewing body—his body is what makes him just one out of the many parts of the situation of viewing and it is the body that underscores the particularity of his critical perspective as incomplete rather than omnipotent. Though Fried longs to transcend his own physical limitations, theatre

[54] Michael Fried, 'Art and Objecthood,' 129. (RF: check page numbers and footnote)
[55] Fried, "Art and Objecthood," 119.
[56] Ibid., 127.

materializes bodily presence through the relational experience of encountering art. Theatricality telegraphs the limitations of modernist criticism, as well as formalism in particular.

Fried's impulse to establish a hierarchy is especially apparent in his second proposition, in which he states that art degenerates as it approaches the condition of theater. Fried emphasizes that in order for art to survive, there needs to be a hierarchy of values and quality. Fried describes theater as a "common denominator that binds a large and seemingly disparate variety of activities to one another, implying that this connection between different activities is detrimental to art.[57]

One of the ways that Fried establishes a hierarchy of values within art is through a discussion of shape, which is central to both modernism and Minimalism. Prior to "Art and Objecthood," Fried explored the topic of shape in an earlier work of criticism, titled "Shape as Form," which was published in *Artforum* in November 1966. In the article, Fried declares that shape has become an object of conviction because it now has "the power to hold, to stamp itself out, and in—as verisimilitude and narrative and symbolism used to impress themselves—compelling conviction."[58] Fried clarifies that whereas minimalist artists, such as Judd, shape objects that "simply are literal," modernist painters, such as his friend Stella, acknowledge and defeat the "literaleness or objecthood given up by the [painting's] support."[59] Fried's distinction between modernist and Minimalist shape is that the modernist artist is able to "transcend" literal shape, and it is

[57] Fried, "Art an Objecthood," 141.
[58] Fried, "Shape as Form," 18.
[59] Ibid.

this transcendence that allows Fried to judge a Stella over minimalist painting. More so than transcendence, Fried's conviction in shape is a disavowal of an artwork's potential to be "sticky" with associations, as well as with its social context. Fried's description of shape as having" the power to hold, to stamp itself out, and in" is the language of plasticity, but the critic purges it of its social potential. By upholding an approach to shape that transcends the physical, Fried reduces the queerness and intersectionality of social plasticity to a purely formal category.

It is striking that Fried identifies shape as gaining significance at precisely the moment that plastics became more accessible to artists. As historian Jefferey L. Meikle points out in *American Plastic: A Cultural History*, plastic "possesses little cultural value until it takes definite shape."[60] Meikle arrives at this assertion by visiting a molding plant, where he observes storage bins overflowing with countless colored resin flakes that lie in wait to take form. He writes: "Not until plastic emerges from a specific mold does it possess a definite form enabling it to satisfy functional demands, to convey cultural meaning, to interact with its environment in ways both intended and unforeseen." [61] Though a molding plant offers a different setting to an artist's studio, in both cases plastic always transmits the social. Regardless of its final form, each plastic object conveys multiple meanings that are both tangible and intangible, and that are intimately tied to the social through the object's function to satisfy needs and desires. Fried's attempt to distinguish artists who are interested in shape and the modernist artist who transcends

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[60] Meikle, *American Plastic: A Cultural History*, 183.
[61] Ibid., 183.

shape is yet another example of the critic's project to sequester the category of art from the social.

Plastic's lack of inherent meaning challenges one of the main theoretical concerns in "Art and Objecthood": that artwork may specify its own identity. As Robbins points out, Fried's logic is consistent with of the tradition of philosophical skepticism, a mode of inquiry that asks *how* and *whether* we know what we know.[62] Fried developed this theory of mind through his friendship with the Harvard professor Stanley Cavell, a philosopher who argues that skepticism enters art criticism as a "concern over how to distinguish different kinds of objects and how to maintain faith in our own judgment of those objects."[63] It is on these grounds that Fried accuses Minimalist art of "fraudulence" and celebrates modernist art for specifying its identity through its medium-specificity and coherence. What would Fried gain from travelling to the polymer manufacturing plant and encountering the raw plastic pellets? Locating these ingredients would not necessarily reveal the truth of plastic or lead to critical conviction. Plastic's dependence on context does not necessarily result in a crisis of meaning. It may lead to the ecstatic embrace of intersecting identities.

This theoretical underpinning illuminates Fried's final proposition that art's entire value must be inherent within itself and that theatre is anything that lies "between" the disparate categories of painting, sculpture, music, and poetry. He goes on to expound that the literalist artists' claim that artwork needs only to be "interesting" is a claim that

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[62] Robbins's article led me to the following sources on this topic. See Stephen Melville, *Philosophy Beside Itself: On Deconstruction and Minimalism*, (Minneapolis: University of Minnesota Press, 1986); and James Meyer, *Minimalism: Art and Polemics in the Sixties* (New Haven, CT: Yale University Press, 2001).
[63] Robbins, 439.

underscores the duration and inexhaustibility of the Minimalist object. For Fried, the modernist artwork does not have duration because "at every moment, the work itself is wholly manifest."[64] This issue of temporality relates to Fried's first proposition of the need to purge art of theater's relationship to the audience because both of these points emphasize that different viewers actively participate in the meaning making of an artwork.

A year after Fried published "Art and Objecthood," Leo Steinberg gave a lecture at the Museum of Modern Art in New York. In the lecture, Steinberg honed in on Rauschenberg's blurring of distinctions between painting and other forms of art making, but, unlike Fried, Steinberg saw Rauschenberg's integration of art and non-art images, materials, and processes as an expansion—rather than a limitation—of art's possibilities. Steinberg himself echoed Rauschenberg's method of dissembling hierarchies and distinctions by using the word "flatbed," a term borrowed from printmaking, to describe Rauschenberg's "live [pictorial] surface" that is both opaque and horizontally-oriented. Just as Rauschenberg combined media and processes to "let the world in again" into the pictorial surface, Steinberg is interested in a mode of art criticism that is embryonic and animate with the potential for further development. He concluded the lecture with the following statement:

> What I have called the flatbed is more than a surface distinction if it is understood as a change within painting that changed the relationship between artist and image, image and viewer. Yet this internal change is no more than a symptom of changes which go far beyond questions of picture planes, or of paintings as such. It is part of a shakeup, which contaminates

[64] Fried, "Art and Objecthood," 145.

> all purified categories. The deepening inroads of art into non-art continue to alienate the connoisseur as art defects and departs into strange territories leaving the old stand-by criteria to rule an eroding plain.[65]

For Steinberg, the integration of art and life does not threaten the category of art; it opens such distinctive categories as “painting” onto a rich horizontal terrain of social relationships and intimate connections. What this integration does threaten is the connoisseur, or the professional art critic, who, at the end of the 1960s, had become increasingly alienated from intersectional and liberatory politics. Steinberg’s evocative description of an “eroding plain” of the connoisseur posits the professionalized modernist critic as one whose thought had become rigid and lifeless. Within this formulation, the connoisseur’s desire to establish hierarchies is a symptom of his own fear of becoming unnecessary and obsolete.

Considering 1960s aesthetic debates in terms of plasticity sheds new light on Jasper John’s enigmatic sculpture *The Critic Sees* [Figure 8]. Executed in 1961, the sculpture comprises of a rectangular block with a pair of eyeglasses on one of its facades. The glasses suggest vision, or at the very least the presence of eyes, but a closer look reveals that each lens of the spectacles contains a mouth. Poised open, as though in mid sentence, the two mouths welcome a sensory conflation between speech and sight. Titled *The Critic Sees*, the sculpture appears to be a pointed jab at the art theorist who only sees what he himself declares, but reading the artwork in terms of plasticity leads to further insight. Johns covers the mouths, glasses, and the block, which he first made in plaster,

[65] Leo Steinberg from lecture at Musuem of Modern Art, New York, 1968. First published in “Reflections on the State of Criticism” in *Artforum* in March 1972; and eventually in *Other Criteria*, 1972, 61-98.

with a unifying coat of silver sculpmetal, the same plastic-metal hybrid that Hesse uses in *Metronymic Irregularity II*. Whereas Hesse explores the potential of sculpmetal to connect and animate the geometry of the repeated square panels, Johns structures the malleable material into a rigid slab. The two open mouths, which seem to signify speech and, therefore, animacy, have grown sedimentary through the sculpmetal coating, which now begins to evoke asphyxiation. In *The Critic Sees*, Johns sculpts the process of critical thought becoming plastic.

Theatricality, therefore, poses greater challenges for Fried than the mystification of an art object's own staging, but his project is already threatened by the auto destructive tendency of critical thought to harden, grow conservative, and perhaps even become obsolete. The terms "theatre " and "theatricality" are sticky with associations in "Art and Objecthood" precisely because they stand in for social plasticity and its destabilization of hierarchies. Revisiting Fried's propositions reveals that theatricality is a sensibility that materializes the body of the critic, which complicates—and sometimes even dissolves—any fixed relationship between viewing subjects and art objects, corrupts the purity of modernist art as distinctive category and progressive development, and, finally, is fundamentally relational and open-ended. By explicating these threats, I propose that criticism that aims to dismantle hierarchies while aware of its own (partial) perspective, as well as its inclusions and exclusions, opens onto a practice of art criticism allied with social plasticity.

CHAPTER 2

Naum Gabo's Plastic Modernism

As artists gained access to plastic materials during the 1960s and 1970s, Naum Gabo and his sculptures featuring plastics from the 1920s achieved notoriety through such exhibitions as a career retrospective at the Tate Gallery in London in 1966 and *Naum Gabo, 1890-1977* mounted at the Museum of Modern Art in New York in 1977. The timing of these retrospectives inspired many to note a material resonance of the Russian Constructivist's early—and therefore historic—use of plastics with contemporary engagement with synthetics. Michael Fried cited Gabo as a predecessor of Robert Morris's formulation of specific objects in the 1967 essay "Art and Objecthood." Rosalind Krauss, meanwhile, observed the constructed patrilineage between Gabo's use of transparent Celluloid and Minimalist interest in translucent Plexiglas in her 1979 essay "Sculpture in the Expanded Field." Given the significance of Gabo for 1960s and 1970s art discourse on plastic, it is necessary to consider which version of Gabo's work informed these discussions because his early sculptures featuring such plastics as Celluloid were replicated in the technologically advanced Plexiglas by the 1960s. In this chapter, I excavate Gabo's interest in space as a dynamic, nondualist, and embryonic force. Focusing on Gabo's frequently overlooked use of plastic in theatre and plans for public sculpture during the 1920s further foregrounds the artist's approach to space as inherently social, reanimating the plasticity in Gabo's turn to early plastics.

Growing up in a Jewish family, Gabo's biography is marked by immigration, exile, and the tumultuous events of 20th Century Europe. Gabo was born Naum Pevsner in 1890 in the Mogilev district of Belarus, then part of the Russian Empire. His family ran a metallurgy works and foundry, exposing Gabo to the mechanical arts at an early age. [66] In 1910, he enrolled at Munich University to attend courses in anatomy, physics and chemistry, but eventually switched focus to philosophy and began studying logic with a focus on Kant. In addition, he enrolled in courses in civil engineering at the Technische Hochschule in Munich.

Gabo was introduced to groundbreaking theories and scientific discoveries while studying at Munich University, including Wilhelm Roentegen's research on X-rays and crystallography, Heinrich Wölfflin's lectures on art history, and Albert Einstein's Theory of Relativity. Immersed in such a rich and varied curriculum, the young Gabo learned formal analysis alongside the electromagnetic spectrum and the limitations of human vision, as well as the inseparability and relativity of space and time. Gabo would later reflect on his studies, stating: "There was a feeling of space and time, a movement in men's minds."[67] In this quote, Gabo underscores mental stimulation as a defining feature of studying in Munich between 1912 and 1914. Interestingly, his use of the term "feeling" introduces a desire to express, and perhaps to make haptic, or intimate, the cerebral concepts of space and time. Roentegen's research on X-rays revealed that even that most privileged of objects—the human body—could be looked into, and through,

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[66] Beth A. Price, Sally Malenka, Ken Sutherland, Andrew Lins and Janice H. Carlson, "Naum Gabo's *Construction in Space: Two Cones*: history and materials" in *Plastics: Looking at the Future and Learning from the Past*, edited by Brenda Keneghan and Louise Egan (London: Archetype Publications Ltd., 2008), 82.

[67] Gabo (1966), 128.

with the aid of the electromagnetic spectrum. If X-Rays offered images of a physical reality beyond human vision, Einstein's paradigm-shifting theories introduced a crisis of human vision and representation. Whether at the quantum level or in terms of celestial bodies, Einstein's theories operated at scales beyond average human perception. Both of these influences exposed the young Gabo to space as a dynamic with invisible forces rather an empty void.

Space is central to Gabo's discussion and it is therefore necessary to explore how the artist defines this concept. In his essay "Sculpture: Carving and Construction in Space," Gabo identifies the Constructivist sculptor as one who approaches space itself as having mass, stating: "We consider [space] as an absolute sculptural element, released from any closed volume, and we represent it from inside with its own specific properties." [68] According to Gabo, Constructivist sculptures embody the revolutionary idea that space has been freed to possess a materiality, and that this physical reality requires new methods of articulation and expression. I would propose that Gabo became aware of space as possessing a spatial plasticity following his experience of the October revolution, especially when paired with his interest in Einstein's theories. Gabo continues to state:

> In our sculpture space has ceased to be for us a logical abstraction or a transcendental idea and has become a malleable material element. It has become a reality of the same sensuous value as velocity or tranquility and is incorporated in the general family of sculptural emotions where up to date only weight and volume of mass have been predominant. It is clear that this new sculptural emotion demands a new method of expression

[68] Naum Gabo, "Sculpture: Carving and Construction in Space" in *Gabo* (Cambridge, MA: Harvard University Press, 1957), 1968.

> different from those which have been used and should be used to express the emotions of mass, weight, and solid volume. It demands also a new method of execution.[69]

Gabo describes space itself as a "malleable" and "material" element, suggesting that it is pliable and plastic. No longer subservient to mass, space has been liberated to take shape and impress upon with its sensory—and sensuous—value. In addition to being malleable, interstitial space is also germane with emotive potential. Drastically different from formulations of space as an abstract or rational concept removed from lived experience, Gabo's space is affective and physical.

According to Gabo, Constructivist sculpture does not just exist in space as an object, but works to define and mold the plasticity of space. Gabo would eventually describe space as dynamic in the "Realist Manifesto," stating: "in these arts is a new element the kinetic rhythms as the basic forms of our perception of real time." Space is therefore posited as a series of motions, or as "kinetic rhythms.[70] Gabo went on to consider that this dynamism of space dissolves the binary between animate and inanimate matter, writing:

> A very, very strong idea, and one which is still with me, was that there is no such thing as dead matter or alive matter, and that there is no such thing as organic chemistry or inorganic chemistry. The whole thing is a bio-sphere. It is alive. All is alive.[71]

Gabo's compelling formulation of space as a buzzing and living biosphere is yet again a vast departure from analytic or disembodied space. Whereas analytic space demarcates

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[69] Ibid.
[70] Naum Gabo and Antoine Pevsner, "The Realist Manifesto" in Gabo, *Gabo*, 399.
[71] Naum Gabo in "Naum Gabo, Sculptor, Dies at 87" by John Russell in the *New York Times (*August 24, 1977).

clearly between subjects, objects, and the distance between them, Gabo's description of space as a unified biosphere of aliveness suggests that space and matter are nondualist. This further suggests that the distinction between viewer and the art object is radically different in Constructivist sculpture: artwork, viewer, and space are all part of the same vibrating biosphere. Gabo's approach to space resonates with vitalism, but whereas the synthesis of polymers seemed to provide counterevidence to the notion that a "vital spark" distinguished organic matter from the inorganic, Gabo believes that so-called inanimate matter is also alive. Transparent plastic materials become key to materializing this vibrating energy for the sculptor.

The outbreak of World War I expelled Gabo to leave Germany without graduating and he joined his brother Antoine Pevsner in Oslo. Away from the war front, the brothers began experimenting with figurative sculpture. It was at this time, in 1915, that Naum Pevsner adopted the surname "Gabo" to distinguish himself from his brother and began tinkering with his now well-known stereometric system of construction, innovatively building naturalistic human heads with interlocking planes. In a way, Gabo's stereometric system of construction became a self-directed honors thesis in which he applied—and built upon—the disparate bodies of knowledge he had encountered as a student.

Gabo developed his stereometric method by constructing his 1915 *Constructed Head*, a sculpture built from plywood, a plastic-reinforced wooden board. In the work, the human head, a prominent motif of Gabo's work while in exile in Norway, emerges within the interplay of individual planes. To focus on the sculpture as a uniform object frequently results in an analysis of the work as Gabo's abstraction of the human torso

onto a dematerialized geometric grid. Yet the work features curved planes that resist the vertical and horizontal axis of the grid, and, despite the flatness of the plywood boards, Gabo sculpts the form in the round, further eluding the flattening of a grid or a diagram.

Further consideration of Gabo's interest in X-Rays and Einstein's theories results in an altogether different reading of the work. In *Constructed Head*, Gabo proposes something striking about matter: though the human body may appear as a coherent entity, approaching it in terms of matter reveals alternative forms of visibility and configuration. The overall form of the human head is contingent upon the planes and each plane is relative to those around it, suggesting that the human form itself is relative to its surroundings. Gabo's decision to focus on the human head is also striking, given his emphatic recollection of the "movement within men's minds" that characterized his time in Munich. The head is the site of the brain, an organ most strongly associated with the mind, and Gabo constructed this "site" of movement by intersecting flat planes made out of plywood. Perhaps it is not so much accurate to say that Gabo dematerializes the human body through his nascent stereometric method but that he renders theory material. *Constructed Head,* therefore, makes visible Gabo's synthesis of concept and form.

These early wartime experiments would eventually lead Gabo to develop a clearly articulated stereometric method of constructing. In 1930, Gabo made *Two Cubes (Demonstrating the Stereometric Method)* to accompany his essay "Sculpture: Carving and Constructing in Space," which was published in the anthology *Circle* [Figure 9]. The titular forms in *Two Cubes* show two different ways of defining space in sculpture: one uses solid mass while the other expresses the form's inner space. Whereas the first cube

appears as a solid mass with only three planes exposed to the viewer at anytime, the second cube is built through the stereometric method to render four planes visible without enclosing the shape as a mass. According to Gabo, inner space exemplifies the "Constructed idea," where the boundaries between the object and the artist's perceptions of that object were dissolved, so that "art becomes reality."[72] The phrase "Constructed Idea" is an oxymoron; it pairs the inherently immaterial idea with a word signifying the act of building with physical materials in space.

Two Cubes additionally raises questions regarding the relationship between writing and sculpture, as well as between theory and matter for Gabo. In the essay, Gabo explains his sculptural method, which he has developed by constructing with physical materials. The essay serves as an exposition of his engagement with matter, or as an artist's statement on his approach to sculpture. Yet Gabo does not stop with the essay. He also constructs two cubes as a pedagogical device to further illustrate his method and render his thought material. Both the essay and *Two Cubes* are forms of translation: the essay serves as a translation of Gabo's theory from three dimensions into the medium of writing, while *Two Cubes* translates Gabo's writing into constructivist material. These cross-fertilizations complicate the primacy of concept over material and affixes thought and matter to one another. Indeed, central to Gabo's stereometric method is that matter and thought are integrated and malleable. According to Daniel Herwitz, theory is as important as art for Gabo: they are integrally linked, the one sparking the other, "as if the

[72] Naum Gabo, *Two Cubes (Demonstrating the Stereometric Method)* 1930, Gallery label, April 2012, Tate Modern, https://www.tate.org.uk/art/artworks/gabo-two-cubes-demonstrating-the-stereometric-method-t02166.

word and object are in alliance."[73] As Herwitz argues, referring to Gabo, the constructive aesthetic is characterized by the manner in which the art can be transposed into philosophy with goal of transforming culture and politics.[74] Art both interprets the world and seeks to transform it."[75]

Gabo and Antoine Pevsner moved to Moscow shortly after the February Revolution of 1917. Though Gabo would later revise his biography to suggest that he returned to Russia prior to the February Revolution, at times noting relocation during "the end of 1916,"[76] it seems probably that Gabo and Pevsner arrived in Russia in April of 1917.[77] As Martin Hammer and Christina Lodder note, the provisional government under Krensky abolished all legal restrictions on Russian Jews in late March, allowing for smoother immigration and a more open society.[78] Gabo enthusiastically embraced Revolutionary Russia, stating: "I returned to Russia from Norway only because the Revolution had happened…from that peaceful distance the Revolution seemed to me to be some kind of heavenly radiance, a token of fate presaging a new life, a new earth, a new people in my homeland."[79] Post revolutionary Russia appeared to be a drastic departure from its former Empire. In addition to becoming more inclusive of immigrants

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[73] Daniel Herwitz, *Making Theory/ Constructing Art* (Chicago, IL: University of Chicago Press, 1993), p. 39.
[74] Herwitz, 27.
[75] Ibid., 28.
[76] Naum Gabo, "Miscellaneous Notes," [1960s and 1970s], F. III.22, f. 9, Tate.
[77] Gabo's Soviet passport, issued November 14th 1934 in Paris and relinquished in 1952, Yale.
[78] Hammer, Martin and Christina Lodder, "Constructing Modernity: The Art and Career of Naum Gabo," 53.
[79] Gabo, "Autobiographical Notes," [c.1940], B.III.7, p. 1, Tate.

and Jews, the Provisional Government acceded quickly to demands over gender equity and extended full voting and legal rights to women[80]

Between the drastic political changes and greater opportunities for people to shape society, it is difficult to overestimate the impact that the revolution had on artists. It was during the five years following the revolution that Gabo developed his public identity. Gabo recalled, "I was one of the hundreds of artists in Moscow possessed by the vision of a new life."[81] In Moscow, Gabo and Pevsner met such influential artists as Vladimir Tatlin and Kazimierz Malevich. The young Gabo was especially drawn to Malevich's aesthetic theory, though the two artists disagreed on several key points. Malevich rejected Gabo's stereometric method as being too rooted in figuration, whereas Gabo was cautious over Malevich's espousal of abstraction. Referencing his debates with Malevich, Gabo stated, "My argument was that it is a mistake to consider abstraction sacred, the fact of abstraction in science does not mean that science rejects the laws of nature."[82] Gabo's approach to abstraction was therefore still rooted in the natural—and social—world.

In addition to eluding the category of pure abstraction celebrated by Malevich, a closer look at Gabo's early 1920s work reveals that his aesthetics were deeply imbricated with the social. One of the best examples of Gabo's interest in constructing the invisible—yet nevertheless real—social dynamics of post revolutionary Russia was his

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[80] Romanov, Nikolai Alexandrovich, *Dnevniki Imperatora Nikolaia II*, ed. Shchhatsillo, K. F., Kozlov, B. P., Pavlova, T.F., and Peregudova, Z. I., (Moscow, 1991), 625. It should also be noted that women were responsible for this and had been organizing prior to the revolution. Russian celebration of International Women's Day started in 1913 and women were the first to take to the streets in the revolution.
[81] Gabo, "Kak ya stal revolutsionerom", [1970s], p. 7, Tate.
[82] Gabo, "Autobiography," p. 9.

Project for a Radio Station [Figure 10]. Dated to 1921, Gabo's *Project for a Radio Station* is certainly indebted to Vladimir Tatlin's *Model for a Monument to the Third International*, which was exhibited in Moscow in December 1920 and hailed by poet Vladimir Mayakovskii as "the first object of [the] October [Revolution] [Figure 11]."[83] In his drawing, Gabo proposed that the ideal architecture for a radio station of the new Soviet state would be an openwork apparatus. The structure's iron base evokes the girder construction of the Eiffel Tower, perhaps aligning Moscow with Paris as an iconic center of culture, or oil derricks, cranes, and mine shafts. Upon the iron base, Gabo sketched planes of linear geometric forms that culminate in a tower of transparent semi-circles, cones, and spheres that are arranged in a way to suggest motion, as though the entire structure is designed to move. Given that the drawing is a project for a radio station, these crowning conical details serve a functional purpose as megaphones, meant to amplify the messages and aid uniting the masses into a listening public. Transparent materials (most likely plastics) and sound are integrated to communicate the potential of sonic plasticity.

The drawing is certainly preliminary and Gabo was never able to realize the project, but it is striking that Gabo introduces conical shapes—forms that he is yet to achieve in physical materials—in a drawing proposing his ideal design for a radio station. Rather than appearing purely abstract, the cones are a motif signifying amplification, communication, and the saturation of space with transmitted radio messages. In addition to drawing a design for a structure of a radio tower, Gabo also approaches space as engendered with the possibility of communication and sociability with the aid of new

[83] "Mayakovskii I Tatlin. K 90-letiyu so dnya rozhdeniya khudozhnika," reprinted in *Neue russische Literatur* (Almanach, Salzburg, 1978) p. 90.

technology. Gabo's work is frequently described as immaterialized because of his use of transparent plastic and glass, but this drawing reveals that Gabo approaches dematerialization as tactic to mold the saturated and noisy social space of invisible radio signals in addition to exploring abstraction. *Project for a Radio Station was* not Gabo's only plan for public artwork. His interest in constructing public structures is apparent in such projects as *Model for a Monument for an Observatory* of 1922, as well as *Monument for an Airport* and *Rotating Fountain*, both from 1925.

Perhaps the best example of Gabo's interest in public space and the integration of art and the social is the 1920 *Realistic Manifesto*, a declaration of Gabo's aesthetic theory co-signed by Pevsner. Gabo navigated the social space of the streets of Moscow to nail hundreds of copies of the manifesto to street signs and kiosks. This gesture not only addressed an expanded notion of the art public and improved the circulation of Gabo's ideas, but also performed one of the main points of the manifesto, which stated:

> In the squares and the streets today we proclaim, to you, the people, our Word; we are taking our Deed out into the squares and streets, in the conviction that art cannot and must not remain refuge for the leisured, a consolation for the weary, an excuse for the lazy. Art is called upon to accompany man everywhere, wherever his inexhaustible life flows and acts—at the factory bench, at the table, at work, at rest, at play; on working days and holidays, at home and on the road—in order that the burning urge to live may never be extinguished in mankind.[84]

Gabo, therefore, claimed art's integration with life and sociability. Though Gabo would later disagree with the extent to which such artists as Tatlin, Aleksandr Rodchenko, and Varvara Stepanova wanted to dissolve art into life, Gabo's manifesto resonates with

[84] Naum Gabo, "The Realistic Manifesto" (1920) in *Gabo on Gabo*, ed. by Martin Hammer and Christina Lodder (East Sussex, England: Artist . Bookworks, 2000), 21-44.

Stepanova's approach to Constructivism as a method rather than a style, which she described as an "inventive, creative activity, embracing all those fields which relate to the question of external form."[85] Art Historian Patricia Railing formulates Constructivism as "a method for bringing together all the arts as artistic activities without hierarchy in the creation of a new artistic culture in a new communist society."[86] Gabo and many of his contemporaries approached Constructivism as deeply invested in the social, as well as equality, aligning the Constructivist method with the operation of plasticity through a dismantling of hierarchies.

In the "Realist Manifesto," Gabo identifies space and time as the only universals of life and claims that art and the new post-revolutionary society must be reconstructed with these principles in mind. He states:

> Space and time are the only forms on which life is built and hence art must be constructed. States, political and economic systems perish, ideas crumble, under the strains of age but life is strong and grows and time goes on in its real continuity.[87]

Observing the disintegration of the Russian Empire and its visual vocabulary, Gabo pursues an art form based on principles that are not dependent upon temporary political or economic systems. According to Gabo's manifesto, Constructivism is an art in tune with social, political and scientific progress, as well as the ideology of the revolution, because constructing with space and time could serve as a common ground for diverse people, and as the building blocks for a modern and revolutionary society. Gabo

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[85] Varvara F. Stepanova, quoted in *Art into Life* (Seattle, WA: Henry Art Gallery, University of Washington, and New York: Rizzoli, 1990), p. 173.
[86] Patricia Railing, "The Idea of Construction as the Creative Principle in Russian Avant-Garde Art" in *Leonardo*, Vol. 28, no. 3 (1995), 194.
[87] Ibid., 26.

declared: “Neither Futurism nor Cubism has brought us what our time has expected of them.” Cubism had dismantled conventional representation, but its destructive and superficial qualities meant that it “cannot satisfy us who have made the revolution, us who are building, us who are creating and making anew.”[88] Tellingly, Constructivism is not about pure deconstruction, but about a synthesis that destroys outmoded societal structures while building new ones.

In his formulation of space as the dynamic meeting point of intersecting forces and rhythms, Gabo’s theory of Constructive sculpture anticipated Henri Lefebvre’s later work on social space. For Lefebrvre, space is not a:

> Thing among other things, nor a product among other products; rather, it subsumes things produced, and encompasses their interrelationships in their coexistence and simultaneity—their (relative) order and/or (relative) disorder. It is the outcome of a sequence and set of operations, and thus cannot be reduced to the rank of a simple object. At the same time there is nothing imagined, unreal, or ‘ideal’ about it…Itself the outcome of past actions, social space is what permits fresh actions to occur, while suggesting others and prohibiting yet others.”[89]

Much like Lefebvre, Gabo attempted to liberate space from its secondary status within art and philosophy. Gabo’s articulation of space as material, malleable, and emotive, reveals that what is “new” about Constructivist treatment of space is that it is recognized as social, rather than a mere abstract concept. Space has a real existence and contains, or holds, the social. If social space is what comprises the relationships between entities within space, then Gabo’s theory of sculpture posits space as both a product of (revolutionary) social interaction and itself a catalyst for future events and relationships.

[88] Gabo, “Lecture delivered at Princeton University, 22 April 1975,” typescript, p. 4, Yale.
[89] Henri Lefebre, *The Production of Space* (Malden: Blackwell Publishing, 1991), 73.

The aim is to inspire future viewers to recognize the social, political, and aesthetic significance of space, and then actively mold and reconstruct it.

Approaching space as a plastic force, it is therefore not surprising that Gabo sought out plastic materials to communicate these invisible—yet nevertheless—dynamic potentials of space. Plastics satisfied Gabo's criteria of constructivist materials for several reasons. In his manifesto, Gabo renounces color and volume. Gabo claims color is accidental and that it distracts viewers from perceiving and experiencing space as one continuous volume. Encountering such lightweight and transparent plastics as celluloid nitrate, Gabo found a material that not only lacked intrinsic color, but it also allowed the artist to articulate continuous volume without signifying, or physically adding, mass. Gabo was also drawn to transparent plastics because of their potential effect on the viewer. He theorized that the use of clear plastics could induce a state of open mindedness, which could help transform the viewer's consciousness and inspire them to construct a more progressive world through the use of new materials.[90]

In 1921, Russian writer and literary critic Osip Brik called upon painters to abandon easel painting in favor of designing industrial objects and the group of artists associated with the Institute of Artistic Culture, or INKhUK, embraced Productivist art as the dominant ideology. The rise of Productivist art coincided with the implementation of Lenin's New Economic Policy, suggesting that the economic plan may have influenced the artists' focus on utilitarian design, or, at the very least, conditioned the possibility of artistic intervention. Reflecting on this political climate, Gabo later stated: "Tatlin's

[90] Lefebre, 27.

group, who called themselves productivists…called for the abolition of art as an outlived aestheticism, belonging to a culture of capitalist society, and they were calling on artists who were making constructions in space to start doing things useful to the human being in his material surroundings—to make chairs and tables."[91] Gabo would eventually claim that he left Russia due to the growing official hostility to towards experimental art.[92] According to Hammer and Lodder, Gabo was part of an extensive wave of Russian emigration to Germany. Between 1919 and 1923, Russian refugees arrived at upwards of 1,000 per month.[93]

Gabo gained greater access to plastics and other modern industrial materials upon his relocation to Berlin, Frequently musing about the importance of new materials for society and for the contemporary artist, Gabo wrote: "Our century has been enriched by the invention of many new materials."[94] Maria Gogh has pointed out that artists working in post-revolutionary Russia experienced material scarcity, and often resorted to painting wood to resemble the modern metals that they wished to use.[95] Gabo's interest in transparency and volume over mass positioned him to be especially exasperated with this material scarcity. The only plastic available in Russia was cellulose nitrate and its transparency came at a price of high flammability and instability.[96] Returning to

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[91] Gabo, "Russia and Constructivism," pp. 157-158.
[92] Naum Gabo, "Answers to Questions from Edwin Mullins, 1975," 8, Tate.
[93] Williams, *Culture in Exile*, p. 111-114.
[94] Naum Gabo, "Sculpture: carving and construction in space," in *Circle: International Survey of Constructive Art,* J. Martin, B. Nicholson and N. Gabo, eds. London: Faber and Faber.
[95] Maria Gough, *The Artist as Producer: Russian Constructivism in Revolution* (University of California Press, 2005).
[96] Stephen Hackney, "Degradation of Naum Gabo's Plastic Sculpture: The Catalyst for the Workshop," in *Tate Papers*, no. 8 (Autumn 2007). Also: According to Gabo, the first plastic he used was celluloid while still living in Russia, though scholars have questioned whether the material was available before 1926.

Germany in 1922, Gabo began working with the cellulose acetate, a more stable plastic that was produced as transparent sheets under the trade name "Cellon" in Germany and "Rhodoid" in France.[97] This difference in trade names for virtually the same formula highlights the importance of knowing the scientific name for plastics in order to understand how they behave over time. Additionally, the fact that cellulose acetate was better known as Cellon in Germany and Rhodoid in France reveals that Western European nations were developing modern plastics simultaneously and that their production was implicated within national identity as well as financial competition. It is also necessary to acknowledge that petrochemical plastics like polyethylene, unsaturated polyester resins, polystyrene, polymethyl methacrylate, polyvinyl chloride, and polyurethane were developed before World War II but were used mostly for military applications, especially in Europe.[98] Gabo's use of plastic marked an appropriation of an industrial and military material into the realm of art.

Gabo emphasized the significance that plastics played in his work by frequently suggesting that he has already used these materials in Russia in his early glass constructions. *Construction in Space C*, for instance, is usually dated to 1920 or 1921 when Gabo still lived in Russia. [Figure 12][99] The work was first exhibited in Berlin in 1922 and described as "a model for a glass construction" with contemporary accounts

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[97] Cellon was invented by Dr. Arthur Eichengrün and produced in Troisdorf under a license agreement with Rheinisch-Westfälische Sprengstoff AG starting in 1911 (Vaupel: 2005). Société des Usines Chimiques Rhone-Poulenc produced Rhodoid (Champetier: 1954). I have also noticed that it is generally misnamed as "Celon" across art historical texts and museum websites.

[98] The Age of Plastic: Ingenuity and Responsibility, Proceedings of the 2012 MCI Symposium, Ed. by Odile Madden, A. Elena Charola, Kim Cullen Cobb, Paula T. DePriest, and Robert J. Koestler, *Smithsonian Contributions to Museum Conservation*, no. 7 (Smithsonian Institution Scholarly Press, Washington D.C., 2017), 126.

[99] In 1957, Gabo dated this work to 1920.

suggest that it was entirely made of glass.[100] Gabo would later claim that *Construction in Space C* featured plastic, claiming that he had "used transparent celluloid for the first time for the model of [his] construction called Glass *Plastique*" in 1920.[101] Though the work is unknown, a documentary photograph of *Construction in Space C* features sheets of transparent materials that are bent into position and cut into curves, suggesting the inclusion of at least some celluloid. It is possible that Gabo might have gained access to polymers and precise cutting equipment through his connection to the scientific laboratories of the Polythechnical Museum, but plastics were not manufactured in the Soviet Union until 1926 when the Oktenskii Chemical Factory in Leningrad began producing celluloid.[102] The most probably explanation is that Gabo reconstructed *Construction in Space C* in celluloid after already moving to Berlin and exhibiting the work in the *First Russian Art Exhibition*. Gabo's insistence that *Glass Plastique* had featured celluloid from its initial conception reveals the significance of plastics for materializing his theory.

In an effort to introduce German audiences to his brand of Constructivism, Gabo began curating exhibitions. Organized by Gabo, David Shterenberg, and Nathan Altman, the "First Russian Art Exhibition" opened on October 15th, 1922 at the Galerie van Diemen near the Russian Embassy. The exhibit's proximity to the Russian Embassy was not accidental: the Russian Ministry of Information was the show's official host.[103]

[100] *Erste russische Kunstausstellung*, no. 548, plate {40]; and *Gabo*, p. 182, caption to plate 17.
[101] Gabo, "carbon of letter to Richard Furbacher (30 August 1975)," Yale.
[102] Morris Kaufman, *The First Century of Plastics: Celluloid and Its Sequel* (London: The Plastics Institute, 1963), 48.
[103] "First Russian Art Exhibition," *Monoskop*. (November 16, 2018), https://monoskop.org/First_Russian_Art_Exhibition.

Featuring more than 700 works by 167 artists, the exhibit was expansive with each curator organizing several rooms around one theme. Gabo was in charge of Russian avant-garde art and the artist included several of his own sculptures across the three rooms of his contribution. Indeed, Gabo's work featured prominently in the press images for the exhibit. An archival photograph depicts Gabo and his fellow curators standing alongside the artist's 1917 *Torso*, an early sculpture Gabo constructed through his stereometric method while in Norway [Figure 13]. The "First Russian Art Exhibition" was widely attended: 15,000 visitors saw the exhibit in Berlin and it travelled to the Stedelijk Museum, Amsterdam in 1923.

Rosalind Krauss has argued that these travelling exhibitions contributed to Gabo's work becoming logically connected to an aesthetic position where the construction of the object "would point toward an immediate, legible geometry"—a formulation resonant with the emerging activities at the Bauhaus in Germany and De Stijl in the Netherlands.[104] This evaluation is certainly true but it does not consider the nuances of the Bauhaus deploying geometry towards utilitarian design, nor does it leave any room to consider Gabo's more experimental activities, such as his costumes and set designs for the ballet *La Chatte*—an activity that reveals his interest in embodied experience and theater.

Sometime between 1926 and 1927, director Sergei Diaghilev hired Gabo to help with his next installment of *Ballets Russes* in Paris, which would feature music by Henri

[104] Krauss, 57.

Sauguet and choreography by George Balanchine.[105] Travelling to Paris with his own supply of German Cellon plastic, Gabo enlisted the help of his brother Antoine, who was living in Paris at the time and struggling financially.[106] The Pevsner brother had exhibited work as "Russian Constructivists" at the Galerie Percier in 1924 and subsequently at the "Salons des Indépendants," but had remained relatively unknown. Debuting at Monte Carlo on April 30th, 1927, *La Chatte* also marked Gabo's debut for a larger audience in France.

Gabo's set design featured abstract forms of highly reflective Cellon. The plastic's sheen resulted in a play of transparency and opacity, rather than offering an immediate and total view of the stage.[107] Dark backgrounds and strong lighting enhanced the visual effects of the plastics, resulting in the stage appearing as a three-dimensional X Ray [Image 7]. As the dancers moved across the abstract set, they appeared to travel through different states of matter. For the costumes, the lead female dancer wore a conical skirt of transparent Cellon along with a mica headband of two small cones fitted to suggest the titular cat ears of *La Chatte*.[108] Though flexible, the Cellon limited the ballerina's movement, becoming a structuring element of the choreography. Lead male dancer Serge Lifar's costume included a Cellon triangular vest, head ornament, shoulder accents, and shin guards, which reflected light as he danced across the stage [Figure 15].

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[105] Gabo dated the commission to 1926 in hindsight but more recent archival evidence suggests that the commission was not finalized until 1927.
[106] Martin Hammer and Christina Lodder, *Constructing Modernity: The Art and Career of Naum Gabo*, (New Haven, CT: Yale University Press, 2000) 155.
[107] The model was constructed out of Celluloid but Gabo built the actual set out of Cellon.
[108] Olga Spessivtseva danced in Monte Carlo and was replaced by Alica Nikitina for the Paris premiere. Nikitina shared the title role with Alicia Markova.

In addition to providing a visually pleasing "luminous and refracting geometric assemblage,"[109] Gabo's chosen plastics also added a material dimension to a story about metamorphosis. The scenario for *La Chatte* was freely adopted from an Aesop fable in which a young man falls in love with a cat and pleads goddess Aphrodite to transform the animal into a girl. His wish is granted, but Aphrodite tempts the girl with a mouse and the human love interest is turned back into a cat, leading the grief-stricken young man to a tragic end. Corporeal metamorphosis is a frequent motif throughout antiquity; the story of *La Chatte* resonates with the Roman poet Ovid's *Metamorphoses* and the Greek shape-shifting sea-god Proteus. Given that the lead female dancer could only transform her movements, *La Chatte's* story of metamorphosis demanded a protean stage set and costumes that would perform the transmutation of matter demanded by the story. The term "protean" harkens back to the Greek shape-shifting sea-god Proteus and, as already discussed in the previous chapter, was used to describe early plastics to consumers. Plastic offered a material counterpart to myth. Depending on the lighting, Cellon could appear as a solid material or as a light effect, and perhaps even the transformation from one to the other. One spectator observed that the dancers appeared "almost deified whenever the talc in their costumes caught the light and reflected it back in myriad flashes."[110]

Plastics fit the poetics of *La Chatte* but the materials were less popular with the dancers. Olga Spessivtseva, the original ballerina for the role of the cat-woman, disliked dancing on the oil-cloth, an enameled synthetic plastic cloth frequently referred to as

[109] Hammer and Lodder, 154.
[110] Ibid., 157.

"American cloth," because she found it slippery and unsafe. Gabo responded to her complaints by dismissing them: he insisted that his selected material was not slippery.[111] Alicia Markova, a ballerina who would eventually dance the role, took matters into her own hands and decided to perform in rubber shoes to prevent slipping. *La Chatte* eventually travelled to London in June of 1927, where Gabo's set terrorized the theatre employees. One English stagehand complained that being on set felt like "the fucking greenhouse," suggesting that the various plastic components created a hot, humid, and decidedly uncomfortable, environment.[112] Conservator Stephen Hackney states that Gabo's work in plastic mirrors industrial developments because the artist adopted cellulose nitriate, Cellon (cellulose acetate), and eventually Plexiglas as they became available. Gabo's involvement with *La Chatte* doesn't just mirror industrial developments, but predate them: his set and costumes may be the earliest test case of a near-complete environment constructed out of plastics. Well before industrial manufacturers and scientists became aware of plastics' "greenhouse effect" and environmental dangers, the dancers and stagehands involved in *La Chatte* were testing plastic materials through their own experience.

Given his trust in modern materials, Gabo's dismissal of Spessivtseva's concern over the hazards of plastics was not surprising. Gabo used plastics that he believed, initially at least, to be entirely stable. It was the passage of time that revealed plastics to contain an inherent vice, which, in the dramatic language of conservation, is a tendency

[111] Ibid., 155.
[112] Buckle, 1979, p. 491, cited in *The Tate Gallery 1984-86: Illustrated Catalogue of Acquisitions Including Supplement to Catalogue of Acquisitions 1982-84*, Tate Gallery, London 1988, pp.148-52.

of an object or material to deteriorate or self-destruct. [113] By the 1960s, it became apparent that Gabo's Constructivist sculptures in plastics, so valued for their transparency and articulation of volume without mass, were beginning to change color and succumb to gravity.

The problem was first discovered in the case of *Construction in Space: Two Cones,* an artwork Gabo constructed in cellulose acetate in 1927, soon after completing the sets and costumes for *La Chatte* [Figure 16]. *Two Cones* is a significant work in Gabo's oeuvre because its curvilinear cones and lines mark a departure from his earlier, more planar constructions.[114] Featuring two transparent cones stemming from a central core of stereometrically-arranged triangle, *Two Cones* is a further development in Gabo's work because he uses color to articulate volume while rendering balance to appear that much more precarious. Two transparent triangles support the prominent cones, while red triangles are situated inside the apex of each cone. Thick black struts radiate upward from the core while two thin black straps radiate downward, which scholars describe as "suggesting molecular orbital motion and depth of space."[115] Though I have not encountered this in any of the literature on Gabo, I find it striking that the two cones in the sculpture resemble the mica headpiece Gabo created for the cat costume in *La Chatte* as well as the megaphone speakers of *Project for a Radio Station*. Two abstract cones, arranged on a headband to signify cat ears, now mirror one another to point outwards. If two cones could signify listening ears, then perhaps Gabo was working analogically in

[113] Matthew Gale, Tate Papers.
[114] The fabrication date of *Construction in Space: Two Cones* was reported in *Circle* as 1928 but Gabo later amended the date to 1927.
[115] Naum Gabo, *Construction in Space: Two Cones,* Tate Modern.

the sculpture to evoke another auditory feature: two loud speakers attached to one another to broadcast, and amplify, a message. At the bottom, a plane of plastic is mounted to a reinforced base, which offers reinforced structural support. Gabo chose a surprising base to complete his construction: a traditional base of marble juxtaposes modern plastic forms.

Construction in Space: Two Cones arrived in the United States in 1937, when American collector A. E. Gallatin acquired it from Gabo for his Museum of the Living Art in New York University.[116] When the museum closed in 1943, *Two Cones* was displayed at the Philadelphia Museum of Art as part of the Gallatin collection and the sculpture eventually entered the PMA's permanent collection after Gallatin died in 1952. Archival photographs offer a way of tracking the changing appearance of the artwork. The first PMA photograph, taken in 1952, documents *Two Cones* as enclosed within a glass vitrine. Comparing the PMA's 1952 archival photograph against the earliest known image of the artwork, which was published in *Circle* in 1937, reveals that the sculpture maintained its condition, with no visible signs of cracking or loss of transparency.[117] Based on the PMA's archival and conservation reports, it is highly likely that the sculpture had been similarly enclosed within a glass vitrine while on display at the Museum of Living Art.

Sometime between 1937 and 1952, Gabo replaced the veined marble base with a painted wooden one. This suggests that, even if *Two Cones* was housed within a glass

[116] Sanderson and Lodder, "Catalogue raisonné of the constructions and sculptures" in *Naum Gabo: Sixty Years of Constructivism*, S. Nash and J. Merkert, eds. (Munich: Hanser Publishers, 521-91.
[117] Price, et. al, "Naum Gabo's *Construction in Space: Two Cones*: history and materials," 82.

vitrine consistently during this time, the case was removed at least once, and Gabo was a participant in this action. In addition to exposing the sculpture to air, Gabo's removal of the most traditional element of his construction not only unified the artwork into one featuring industrial materials, but also resulted in the marble base exiting the realm of art to enter into that of life. Gabo kept the piece of marble in his home and used it as a cheese cutting board—a gesture underscoring that Constructivist sculpture is continuous with the lived, domestic space of the kitchen.[118]

I stress these details because the year 1960 marked a crisis that, in addition to putting the artwork's survival in jeopardy, revealed a much greater issue. A routine cleaning, standard for sculpture made of wood, ceramic and painted metal, resulted in a material drama. That year, museum staff noted condensation droplets on the interior of the glass vitrine and it was decided that the case would be opened so both vitrine and sculpture could undergo cleaning. Within 24 hours of removing *Two Cones* from its airtight environment, the PMA staff observed the decay of a modern artwork. The core of *Two Cones* fractured and crumbled due to disintegration, and the entire construction collapsed at the age of 33—the apocryphal age of Christ at death and Buddha reaching enlightenment. "The sculpture was 33 years old," became a statement echoed throughout the PMA's conservation records, as though the event marked a tragic loss and a premature death of the artwork. Conservator Theodor Siegl reported the incident as follows:

[118] Anne d'Harnoncourt and Theodor Siegl, Conservation Report, January 25, 1968. Conservation Department Records, Philadelphia Museum of Art, Philadelphia.

> For many years, *Construction in Space* by Naum Gabo rested undisturbed in an airtight case. In the summer of 1960, it was taken from the display case. The air in the chamber was found to have a sickening, strong stench. Cracks developed in some parts of the construction, and on the following day the plastic base and the thick center were fractured to bits.[119]

Siegl description evokes a surprising detail of the visual artwork: its smell. Even before *Two Cones* fractured, a putrid stench foreshadowed its impending disintegration. Though it was unknown at the time, the odor was due to the formation of acetic acid, a telltale sign of cellulose acetate disintegration. Referred to as "vinegar syndrome" by conservator, this revolting smell now accompanies each one of Gabo's ageing artworks featuring cellulose acetate.[120] Smell introduces a somatic dimension to Gabo's artwork, which yet again denies it from ever being truly conceptual. Indeed, ageing underscores the materiality of Gabo's selected modern plastics and its significance for his aesthetic theories.

Observing the collapse of *Two Cones*, Siegl quickly consulted Robert Feller, a scientist at the Mellon Institute in Pittsburgh. Feller was pessimistic about the longevity of Gabo's materials, stating: "Offhand I would say that you are in considerable trouble with this sculpture…it will not last another generation."[121] The scientist's discussion of Gabo's artwork in terms of generations positions it within human time. The discussion articulates *Two Cones* as an artwork with a life and, therefore, a finite lifespan that will ultimately end in death. Despite Feller's fatal diagnosis, Siegl attempted to repair the sculpture by applying Duco cement for support and replacing the shattered plastic with

[119] Siegl, "Conservation" in *Bulletin: Philadelphia Museum of Art* LXII (291), 151-153.

[120] Throughout the research for this chapter, I would get a distinctive headache after spending time with Gabo's ageing artworks in cellulose acetate from this vinegar smell.

[121] Robert Feller, Letter to Mr. Theodor Siegl, 16 August 1960, Conservation Department, Philadelphia Museum of Art.

Plexiglas sheet. Following this experimental intervention, *Two Cones* returned to its vitrine.[122]

This conservation effort proved more of a Band-Aid than a long-term solution since *Two Cones* continued to degrade rapidly. In 1968, the sculpture displayed visible cracking and warping, and it was deemed no longer displayable. It was at this moment in the artworks degradation that the PMA approached Gabo to evaluate the sculpture for possible reconstruction.[123] Unaware of Feller's evaluation nearly a decade earlier, Gabo concluded that the work was beyond repair. Observing the sculpture, Gabo refused to believe that the issue lay in his materials, choosing, instead, to blame the museum for incorrectly storing and handling the work. Much of Gabo's concern hinged on the vitrine: he observed that his stored materials and early plastic artworks displayed in open air did not decay in this manner. Gabo's distrust of the vitrine, as well as of museum storage methods, may speak more to his conceptualization of Constructivist sculpture as existing within the continuous and dynamic space shared by people and artwork.

Nevertheless, Gabo offered to make a replica using some of the original material that was still salvageable, as well as old stock plastic from the 1920s and 1930s that he had on hand in his studio in Middlebury, Connecticut. The PMA staff rejected Gabo's offer for two reasons, and it remains uncertain which played a greater role. First, Siegl and the conservation team had grown weary of Gabo's selected plastics; second, Gabo's

[122] Siegl, 1960.
[123] d'Harnoncourt, 1967.

offer to construct a replica came with a price of $15,000, an amount that the PMA deemed prohibitive.[124]

Based on their correspondence, Siegl and Gabo proposed two different definitions of replication. For those well versed in art conservation quandaries, these two positions may appear prescient of contemporary debates, where an artist's intent is weighed against availability of their ephemeral materials or the accessibility of changing video and audio technology. There are certainly resonances, but I would like to hone in on the language Siegl and Gabo use because this episode marks the first instance of replicating an artwork featuring plastic and because it has tremendous implication on the ontology of plastic artworks, as well as their replicas.

In one letter, Siegl states: "[It is important to make] the replica of material which is as truly permanent as 1968 knowledge can make it."[125] As an agent of the PMA, Siegl's priority is that the artwork, here discussed as a cultural object belonging to the museum, is preserved for as long as possible. Siegl approaches replication as a means of ensuring the object's longevity, and, therefore, prioritizes material stability over its integrity. Significantly, Siegl treats "plastic" as an overarching material category, which can be improved upon through scientific innovation and advances in technology over time. By privileging 1960s scientific knowledge and its material plastic counterparts over historical specificity, Siegl insinuates that a future plastic may solve the inherent vice of Gabo's materials. There is an assumption here that Gabo's use of plastic is a

[124] Naum Gabo, Letter to Mr. Evan H. Turner, 7 April 1968, Modern and Contemporary Art Department, Philadelphia Museum of Art.
[125] Siegl, 1960.

conceptual—and utopian—gesture: to believe that the form of *Two Cones* is meant to reinterpreted through the latest plastic is to read the work as an ideal in which matter is secondary to concept. In Siegl's analysis, the category of "plastic" operates as a material stand-in for an immaterial future, and is therefore treated as more conceptual than material. Siegl's position has compelling temporal implications. Privileging scientific knowledge as a tool for preserving the past for the future creates a temporal fold between the 1960s and the 1920s, as well as a speculative future in which technological innovation transcends matter and the passage of time. Replicating Gabo's construction in contemporary plastics results in a layering of 1960s enthusiasm for science upon 1920s revolutionary ideals.

For Gabo, the replica must be as similar to the original as possible and this includes the integrity of its particular materials. The artist's position does not approach "plastic" as a homogenous material category. Gabo's focus on using old Cellon suggests that he was aware that different plastics exhibit distinct visual properties. More significantly, Gabo's dedication to using historic plastic reveals that he approaches them as having distinctive meanings. After all, it is extraordinary that Gabo had plastic dating back to the 1920s lying around his studio during the 1960s. Gabo acquired Cellon while an émigré in Berlin and his cache of materials had survived a second World War, as well as the artist's move to London and, eventual, settling in Connecticut. The artist's investment in historic materials reveals a desire to connect himself to that revolutionary moment of the early 1920s. Materials, here, serve as Gabo's primary connection the past, as well as his ongoing, and therefore future, connection to the past. Gabo's historical

approach to the replica also engages with a speculative future, but it is reliant upon a material ground, which prevents it from becoming a pure, dematerialized concept.[126]

Gabo eventually withdrew his offer from the PMA and contacted the Tate in London with a replica of *Two Cones*, which the Tate readily accepted.[127] The British museum stored the historic replica in bins ventilated with charcoal to remove impurities in the air, yet the artwork still continued to disintegrate [Figure 17]. Gabo died in 1977, which spared the artist from seeing the dramatic dissolution of his artwork during the 1990s and early 2000s. It is recorded that Gabo eventually accepted plastics' inherent vice but continued to have reservations about the museum institution's role in the decay of his artwork.[128] The PMA, meanwhile, went ahead with their own replica—one I will hereafter describe as a scientific replica to consider it as a method of organizing knowledge, and to distinguish it from the material and historical specificity of Gabo's replica.

To make this second replica, Siegl consulted scientists at the Röhm and Haas Company in Philadelphia. Echoing Feller's initial diagnosis, the scientists advised Siegl to use newer and more stable acrylic plastic Plexiglas, which the Röhm and Haas Company trademarked in 1933.[129] In 1968, the PMA commissioned artist Arturo Cuetara, an artist working with Röhm and Haas, to make a replica entirely out of Plexiglas.[130] The

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[126] Alois Riegl's formulation of newness-value vs. historic value can be applied here to further explicate the differences between Gabo's and Siegl's approaches to replication.
[127] Interview with conservator Derek Pullen on April 5, 2018.
[128] Ibid.
[129] Rarig, F, Letter to Mr. Siegl, April 16, 1968, Modern and Contemporary Art Department, Philadelphia Museum of Art.
[130] Siegl, 1968.

PMA hoped that Cuetara would work directly with Gabo on the replica to capture some of the original artist's expressive nuances, but this did not happen. Using precise measurement, Cuetara took meticulous care in his reconstruction but the high reflectivity and perceived hardness of Plexiglas did not convey the softness and tactility of Cellon. Cuetara's precise replica exposed Gabo's Constructivist sculptures as handmade and inexact. In addition to plastics' transparency and ability to articulate volume without mass, Gabo sought out Cellon in particular because it is easily cut and readily shaped when heated, which allowed the artist to frequently glue separate pieces into alignment rather than construct them mathematically. If Cuetara's replica exposed the haptic and handmade quality of Gabo's *Two Cones*, then Gabo's original underscored the replica as an interpretation of what *Two Cones* represented conceptually.[131] The PMA considers this scientific replica of *Two Cones* strictly a facsimile or study copy, and it has remained in storage near the deteriorated original.[132]

Like a canary in a coalmine, the disintegration of *Two Cones* issued a warning about the use of plastic materials in art. Numerous museums, many with Gabo's early plastic constructions in their collections, followed the artist's conflict with the PMA closely. The Fogg Museum at Harvard, for instance, owned *Construction in Space with Balance on Two Points*. Made in 1925-1926, *Construction in Space* entered Harvard's collection in 1957 and the sculpture's cellulose acetate began showing similar signs of

[131] Cuetara created a scientific replica because it functions as a model of knowledge. It is a citation of Gabo's modern sculpture as opposed to an object that replicates its material reality.
[132] Rosenthal 1984.

decay in the 1960s.[133] Authorized by Gabo, a team of conservators engineered a replica in 1967 out of polymethyl methacrylate, the same chemical compounds as the trademarked Plexiglas, as an attempt to preserve Gabo's disintegrating artwork [Figure 18]. This conservation decision was an act of translation: in the replica, the semi-synthetic material of cellulose acetate is supplanted with a new material—the now fully synthetic Plexiglas. Similarly to Cuetara's scientific replica of *Two Cones*, there are significant differences between the original and Harvard's replica. Gabo made his original through an embodied process of trail-and-error, frequently leaving his fingerprints in the soft plastic. The replica, meanwhile, was reverse engineered and retrofitted through precise measurement. The cellulose acetate planes, which Gabo jammed together, were translated into discrete Plexiglas parts that were cut to exact fit within the replica. Once again, replicating Gabo's construction according to 1960s technological innovation resulted in a scientific replica, which posited *Construction in Space* as an immediately legible abstract sculpture in which concept trumps material. Based on these scientific replicas, it is not surprising that such scholars as Krauss would interpret Gabo's artwork as an attempt to transcend space and time.

Gabo's *Construction in Space* is one of the many replicas created during the 1960s. Indeed, Bryony Rose Bery identifies 1960s as *the* decade of the replica. Not only was the 1960s a watershed decade of artistic experimentation with nontraditional materials and process, but it also ushered in a flurry of activities surrounding the reproduction of artwork. Authorship and materiality were radically reconceived with the

[133] *Construction in Space with Balance on Two Points* Object File, Harvard Art Museums.

rise of process-oriented art: seriality and performance offered new ways of thinking and often invoked a replicative mode.[134]

Conservators, artists, curators, and executors of artist estates frequently refer to the issue of the replica as a "hornet's nest" because it is difficult—if not impossible—to satisfy each of the aforementioned agents with a uniform approach to replication. There is fantastic scholarship on the nuances of individual instances of replication as well as more philosophical work on the general topic. In 2007, the Tate Modern dedicated an entire issue of Tate Papers to the question of replication after its Gabo replica of *Two Cones* disintegrated. The symposium included a range of views on replication, including curator Matthew Gale, who posited the following questions:

> Is it morally defensible to make replicas, or should the work be allowed to die gracefully? Is it something that should be countenanced as part of museum practice, or limited to museum practice? Does the desire to replicate reflect particular attitudes that prevail now, ranging from a nostalgia for the pristine in modernism to the commodification of art? Are there common principles that can be identified in relation to these concerns, or does each artist, each artwork, require a case-by-case solution? Are there broadly generational differences in attitude that would guide decisions, from unforeseen disintegration to embracing the ephemeral and transient?[135]

Strutevant, an artist known for making inexact repetitions of other artist's works, offered a poem, writing:

> Replica is not copy, but it could be. Replica might be double but its "sameness" will trip us up. Replica could never be repetition, for

[134] Bryony Rose Bery, *Volatility, Liquidity and Malleability: Replicating the Art of the 1960s* (UCL: Dissertation, 2016), 21.
[135] Matthew Gale, "Amazement and Uneasiness: Early Thoughts," *Tate Papers* no. 8

> repetition is difference. Replica might be repeating, but that is all surface.[136]

Gale and Strutevant approach the topic of replication with vastly different stakes in the matter: Gale is a curator of Modern Art who must negotiate the Tate's role in preserving and displaying fragile artwork; Strutevant, meanwhile, is an artist whose very methodology constitutes replication and who considers how the ontology of the replica frames aesthetic discourse. Because a thorough discussion of replication is beyond the scope of this dissertation, let alone this chapter, I would like to think through a small facet of replication: its historical moment in the 1960s and its material tie to plastic.

During the 1960s, living artists whose work dated back to the early 20th Century gained museum and art world attention just as their materials started to age. Gabo's negotiations with the PMA and the Tate Modern over *Two Cones* coincided with another major work of reinterpretation. From 1965 to 1966, Richard Hamilton—the subject of the next dissertation chapter—worked to reconstruct Marcel Duchamp's *Large Glass*, a 1915-1923 work deemed too fragile to travel from none other than the Philadelphia Museum of Art. As seen in the example of Duchamp, Gabo was not the only artist whose work was undergoing replication but his case is unique both because he used the unprecedented materials of early plastics and because his work offered Western artists and audiences a connection to the legacy of the Russian Revolution just as Eastern Europe became decidedly closed off during the Cold War. The political Iron Curtain materialized as the erection of the Berlin Wall in 1961.

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[136] Strutevant, "Inherent Vice or Vice Versa" Tate Papers no. 8 poem.

Gabo's rise in fame coincided with the emergence of Kinetic Art and a rising interest the historic Avant-Gardes. The first major monograph on Gabo appeared in 1957 and he became so popular that was even knighted by the British Empire in 1971.[137] In 1966, art critic for *The Times* Hilton Kramer wrote an editorial arguing Gabo's privileged role within the development of modern sculpture. In the article, titled "Gabo and Constructivism: History Revised," Kramer describes Gabo as a historical personage, stating: "By the time Gabo arrived in this country [the United States] after the war, he was—for people interested in modern art—an historical personage."[138] Kramer's reverence for Gabo and his role in the development of modern sculpture is also curiously intertwined with US patriotism. By stressing Gabo's move to the United States in 1946 and his American citizenship, which Gabo acquired in 1952, Kramer presents Gabo's biography and artistic trajectory as a narrative of a revolutionary who moved westwards who pursued creative freedom.[139] Emphasizing Gabo's individuality, Kramer includes the following quote by Alexei, the scientist Pevsner brother: "It was here in Norway that the real Gabo was born, the Gabo who expressed so much of himself in his completely new constructions."[140] Gabo's "constructivist idea," which he certainly initiated in Norway but only developed and materialized by way of experiencing the Bolshevik revolution and pursuing modern materials in Berlin, is here reformulated as the artist's authorial expression and purged of its historic—and communist—specificity. In addition to being easily digestible to US audiences, this account of Gabo's westward migration and artistic

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[137] Yale Papers.
[138] Kramer, 135.
[139] Hilton Kramer, "Gabo and Constructivism: History Revised," in *The New York Times* (March 27, 1966), 135.
[140] Alexei Pevsner, Ibid.

idealism upheld American values of democracy and individualism, which were militarized against the Soviet Union during the Cold War. Kramer concludes his editorial by stating that "the time has come, then, for a major revision of this important and consequential chapter in the history of modern sculpture."[141] Gabo's role as a pioneer of modernism for Western audiences was primarily revised through replication.

Bery identifies an "enthusiasm for the lost work of modernists" as the main reason for the surge in replicas during the 1960s.[142] In Bery's account, which is focused on her research at the Tate Modern, an artwork counted as "lost" during the 1960s for several reasons: it could be inaccessible to audiences, such as Duchamp's *Large Glass* appearing unfit to travel; it could also have gone missing in World War II or remained tucked away in Soviet collections. Most significantly for a discussion of Gabo, an artwork could become lost through the disintegration of its material. Bery offers the term "ephe-materiality" to describe a situation in which the inherent vice of an artwork's materials results in the decision to construct a replica. Ephe-materiality is a helpful term within this discussion because it underscores that both matter and concept, which constitute the materiality of an artwork, exist within time and therefore have a lifespan. Bery's formulation of ephe-materiality is further compelling because it suggests that replication is the "cure" to the inherent vice of an original material. Despite its prevalence within conservation literature, it is difficult to overlook the moralistic tones of the term "inherent vice." The word "vice" is defined to indicate an "evil" or "wicked " behavior,

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[141] Kramer, 135.
[142] Bryony Rose Bery, *Volatility, Liquidity and Malleability: Replicating the Art of the 1960s* (UCL: Dissertation, 2016) 20.

and the fact that this vice is deemed "inherent" suggests that material is somehow imbued with an original sin. This sin, of course, is entropy.

During the 1960s, as Gabo's plastics began disintegrating, it wasn't just replication that became the cure to their inherent vice, but replication in the newest plastics. The cases of the PMA's scientific replica of *Two Cones*, as well as Harvard's reverse engineered *Construction in Space*, reveal that museums embraced replication of Gabo's sculptures because such new synthetics as Plexiglas were regarded as vast improvements on early plastics. Rationalizing 1960s technology and material science as an advancement of Gabo's artistic project, conservators and curators engaged in discourse that treated Gabo's modernist sculpture as one untethered to material and historic specificity. Kramer's call to revise the history of modernism in response to Gabo's sculpture resulted in a reformulation of Gabo's work in terms of a 20th Century canon that prioritized concept over matter. Whereas Gabo's stereometric method rendered material and thought inextricable, scientific replication supplanted Gabo's idealism with 1960s utopian thought that looked upon new synthetics as a technological innovation that could contribute to a future free of material constraints.

Replication influenced the reception Gabo's work during the 1960s and 1970s. In her 1977 *Passages in Modern Sculpture*, Krauss reread the cannon of 20th Century sculpture in terms of time. Krauss evoked Gotthold Lessing's aesthetic treatise *Laocoön* to point out that even the formalist thinker, so intent on distinguishing amongst the arts and diagnosing sculpture as a purely spatial art form, included this important caveat in his

study: “All bodies exist not only in space, but also in time.”[143] Taking the inseparability of space and time as an underlying premise, Krauss argued that modern sculpture is marked by the artist’s awareness of the medium’s peculiar location at the juncture between stillness and motion, between time arrested and time passing, and that aesthetic form emerges from this generative tension. For Krauss, this historical and theoretical awareness is initiated by Rodin, realized through /Duchamp, and then extended to David Smith and explored by such contemporaries as Richard Serra, Richard Smithson, and Robert Morris.

Positing a cannon, even an alternative one, necessitates exclusion and Krauss’s formulation of modern sculpture results in at least one casualty. Krauss describes Gabo’s artwork as a counterpoint to Tatlin’s move into “real space and real materials,” which suggests that she does not believe Gabo’s constructions address the body of the viewer by sculpting with actual materials or gesturing towards a shared space between artwork and viewer.[144] In the book, Krauss hones in on Gabo’s 1923 *Column*, a work featuring wood, metal, and plastic, to state that the work’s transparency presents an “experience of time and space [that] is both summarized and transcended [Figure 19].”[145] This is a death knoll for the artist’s critical legacy: According to Krauss’s—admittedly brilliant analysis—modern sculpture is marked by a departure from narrative and simultaneity to instead address viewers through a provocation of the contingent and the incomplete. Gabo’s modernism appears so utopian that it is anachronistic to 20th Century sculpture, and

[143] Gotthold Lessing, *Laocoön,* translated by Ellen Frothingham (New York: Noonday, 1957), 91.
[144] Rosalind Krauss, *Passages in Modern Sculpture* (Cambridge, Massachusetts: The MIT Press, 1977), 57.
[145] Ibid., 62.

perhaps even outdated in its supposed lack of concern for the viewer or phenomenological analysis.

Krauss's dismissal of Gabo's construction pivots on his use of transparent plastics. "When Gabo began to use clear plastics to fashion his work," writes Krauss, "this exploitation of transparent materials was obviously an extension of his intellectualist position."[146] For Krauss, Gabo's turn to plastic signifies a move away from real space and time, and towards an idealized and dematerialized concept. Gabo comes to stand as a citation of the triumph of the analytic mind over brute material, which distances him from Krauss's phenomenological formulation of modern sculpture that favors the experience of sculpture. Why is it that Gabo's interest in plastic is interpreted as a denial of materiality? Within Krauss's formulation, plastic appears less a material than an idea signified, a quasi material that disavows its materiality even as it shares the same physical space with viewers. Central to Krauss's dismissal of transparency is that she equates it with a lack of interiority, which she describes as "opacity." Though transparency and opacity appear to differ in terms of optics, Gabo employs see-through plastics to evoke that which is hiding in plain: spatial plasticity. Whereas Krauss reads Gabo's materials as evoking utopian or analytic space, Gabo is invested in constructing with the concept and materiality of spatial plasticity.

To experience Gabo's artwork today is to observe a sculpture that is not only coexists within the space of the viewer, but that is actively ageing. In April of 2018, I visited Harvard Art Museums to observe Gabo's 1925-1926 *Construction in Space with*

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[146] Ibid., 60.

Balance on Two Points, a sculpture depicted on the website as an upright play of transparent geometric plastic planes [Figure 20]. In reality, the sculpture is a far departure from its archival photograph. Once a construction balanced on two points, Gabo's sculpture now demands props to keep it from collapsing. Visibly top heavy, the sculpture has wilted, surrendering to gravity and the passage of time. Transparent plastic sheets have yellowed and grown opaque. The decaying cellulose acetate has acquired a sepia tint, coloring its surroundings. In addition, the plasticizer that ensures the elasticity of the plastic has migrated, forming bubbles, which look like beads of sweat against the yellow plastic and give the sculpture a corporeal quality. And then there is the smell of the artwork. As cellulose acetate ages, it gives off a distinctive vinegar scent that not only makes a visceral impression on the viewer, but may even inspire a headache.[147]

Construction in Space was already displaying signs of ageing in 1977, when Krauss interpreted Gabo's use of plastic as a transcendence of time and as a triumph of concept over material. Yet, it is unlikely that Krauss was aware of the way Gabo's selected materials were responding to time and their environment because of a proliferation of museum replicas that were authorized during the late 1960s and early 1970s in such new synthetic plastics as Plexiglas. Translating Gabo's early plastic artwork into more advanced Plexiglas cemented his interest in modern materials, but it erased his overall approach to space as a dynamic, malleable, and emotive force.

[147] As someone prone to migraines, I admit that I am more sensitive than the average researcher but it is common for conservators to experience headaches after working on Gabo's artwork featuring cellulose acetate.

Focusing on plastics' role within Constructivist sculpture suggests that Gabo's modernism itself became malleable during the 1960s because replication introduced a rupture within its historic category. The replica became the mechanism by which Gabo's modernism acquired multiple temporalities: Gabo's early 20th Century artworks are simultaneously decaying within linear time and multiple through the proliferation of their surrogates.[148] Here, I want to distinguish "plastic modernism" from the term "modernisms," which acknowledges that different cultures and geographic locations have different manifestations of modernism. I describe Gabo's modernism as plastic because the 1960s intervention of the scientific replica grafted another temporality onto entropy and the linear passage of historical time.[149] The replica's rupture of time is one of plasticity because it destroys even as it initiates multiple temporalities. As discussed in the case of *Two Cones*, scientific replication gestured towards a transcendent future by erasing historical specificity. As rigid Plexiglas replaced the softness of cellulose acetate, precise engineering erased Gabo's fingerprints, whimsy, miscalculation, and tactile exploration. The self-given name "Gabo" gained the status of a proxy representative of a version of the Russian Revolution that resonated with 1960s scientific innovation. It came to denote analysis and the transcendence of space and time.

Excavating Gabo's interest in theatre, public art, and the dynamism of space animates the plasticity of his Constructivist sculpture and informs why historic plastic

[148] Gabo also continued to circle back to the early 20th Century. During the last few years of his life, Gabo had been working on his autobiography and concentrating on the period of the Russian Revolution. Unable to complete the chapter on the revolution, the entire project remained incomplete and fragmentary at his death.

[149] Perhaps it is more accurate to say that the replication *revealed* Gabo's modernism as plastic.

materials continued to remain important to the artist. The absence of this plasticity within art discourse suggests that it is both dynamic and fragile: that the process of defining such categories as “Modernism” or “modern sculpture” frequently overlooks the operations of theatre and sociability, as well as the radical nondualist notion that an artwork, the viewer, and the space between them are all part of the same biosphere—one that is without hierarchy.

CHAPTER 3

Richard Hamilton's Synthetic Pop

"The Pop-Fine-Art standpoint is fundamentally a statement of belief in the changing values of society. Pop-Fine-Art is a profession of approbation of mass culture, therefore anti-artistic. It is positive Dada, a creative where Dada was destructive. Perhaps it is mama."[150] – Richard Hamilton

Richard Hamilton's tabular paintings feature an array of materials and objects. To see Hamilton's tabular paintings in person is to discover that their surfaces are neither flat nor uniformly executed in paint. A rectangle of metalized polyester reflects the viewer's gaze in *Toaster*; a draftsman pencil is attached to the canvas in *Interior I*, its point acts as an arrow, leading the onlooker towards the center of the painted room, while its three-dimensional presence undoes the construction of linear perspective within the scene; a plastic button and piece of cloth protrude from the surface of *The state* as the military fatigue forms a pocket that is camouflaged as paint. Each of these objects stretches the elasticity of the artwork's pictorial surface. Never fully subsumed into the painting, the materials offer points of contact between art and life, acting as a bridge between the museum exhibition space and consumer society, the object's history, and the body of the viewer. There are worlds of materials in Hamilton's paintings and these materials play a pivotal role within the artist's ecology of objects and human bodies, as well as of matter and flesh.

[150] Richard Hamilton, *Collected Words*, London: Thames and Hudson, 2001, 43.

In this chapter, I focus on Hamilton's tabular paintings to consider how that most popular of materials—plastic—impacts existing art historical formulations of Pop Art. Hamilton's articulation of Pop-Fine-Art as positive Dada, or the pun "Mama," informs my discussion of the artist's incorporation of mass produced plastics into the elastic surface of the picture plane. Most often appearing as body parts of sexualized female figures, the plastic elements in Hamilton's tabular paintings lend themselves to a deconstructive reading of femininity and gender performance. Yet, deconstruction fails to account for plastic's materiality and aging, which resists Hamilton's authorial intention and the sterile frame of the category "Fine Art" to instead align synthetics with the world of the viewer—a social space of cohabitation and of material transformation.

Synthetics act as a signifier of synthesis, but not in the Hegelian sense of the resolution of the thesis and antithesis dyad. Existing as both figure and ground, as well as self-contained object and a part of the composition, the plastics in Hamilton's tabular paintings move past postmodern formulations of deconstruction onto plasticity, where the destabilization of maleness and femaleness, as well as synthesis of seemingly contradictory gendered bodies, open onto exponential configurations of bodily pleasures and identities. I seek to recuperate the term plasticity from how it is used today—namely as endlessly pliable and receptive to the demands of capital—to a transformative movement that is both material and conceptual. If Dada asserts itself through negation, Mama's refusal of exclusion is an affirmative negation. If Dada establishes patrilineal relationships through a succession of progeny, Mama's embrace of the "and" invites the

viewer to decide what to see for themselves, as informed by their bodily experience and desires.

Hamilton is frequently cited as the progenitor of Pop Art, yet remains an outsider to the genre. Despite the recent scholarly and curatorial attention to Pop Art as a global art movement with centers of activity spanning Brazil, Europe, and Japan, the Art Historical category remains dominated by United States artists, and by those living in New York City especially.[151] The first reason for Hamilton's contested status as a Pop Art progenitor is disciplinary because the timing and reception of his artworks resist the linear development of the history of art. Hamilton's engagement with American consumer culture predates that of Andy Warhol and Claes Oldenburg, yet he would not travel from Britain to the US until 1963, when New York Pop Art was already a recognizable aesthetic, and he would not have his first solo exhibit in the US until 1967, at the Iolas Gallery in New York.[152] Both prescient and belated, Hamilton's Pop images of the 1950s are out of synch with New York Pop's boom in the early 1960s, therefore complicating his status as a founder of the genre.

An even more compelling challenge to Hamilton's position as the forerunner of Pop Art comes from his own artistic practice, in which he repeatedly refutes his authorial position. After all, Hamilton spent three long years pouring over Marcel Duchamp's notes to reconstruct the senior artist's *Large Glass*—a labor of love and deep study that runs counter to an artistic trajectory engrossed with a pursuit of originality and self-

[151] Global pop art shows include *International Pop*, organized by curators Darsie Alexander and Bartholomew Ryan at the Walker Art Center in 2015.
[152] Richard Hamilton's exhibit *Paintings 1964-1967* took place at the Iolas Gallery in New York in 1967.

branding. For Hamilton to spend the early 1960s—the height of New York Pop and an important moment for the emergence of the Art Historical category of "Pop Art"—as the self-appointed translator of, and perhaps even a vessel for, Duchamp, does stitch a bond between Duchamp's Dada and Hamilton's affirmative Pop, yet this bond is one of kinship rather than lineage, and marked by resonance and coexistence, instead of patricide.

Perhaps it is more accurate to describe Hamilton as "Pop's Mama," as proposed by Jonathan David Katz, who also engages with the Hamilton quote that serves as the corner stone of this chapter. Katz makes note of Hamilton's alignment with mama, stating:

> For a straight male artist to align himself with mama, the female protean force, is in itself striking. But even more significant is the connection between Hamilton's cultivation of queer play with duality, and his embrace of a foundational 'positive Dada' committed to a non-hierarchical relation among opposites.[153]

In his discussion, Katz considers Hamilton's alignment with a female protean force, as opposed to Dada, as proof of the artist's embrace of duality. Hamilton's interest in "Mama" is a clever pun on the early 20th Century art movement Dada, whose name is a supposed reference to a child's first fumbles with the word "Daddy." For Hamilton to align his work with "Mama" is to play with the duality of language; by riffing on the art movement's name, Hamilton also destabilizes the primacy of the father, as Dada, with the

[153] Jonathan David Katz, "Dada's Mama: Richard Hamilton's Queer Pop" in *Art History*, Volume 35, Issue 2 (2012), 336-353.

female protean force of Mama. Katz further extends this connection between the duality of Dada/Mama to queerness, and argues that Hamilton's progenitor status is queer—in that he is more of a Mama-in-Drag, or a queer daddy of Pop Art, rather than the genre's patriarch—and, even more significantly, that Hamilton's embrace of a positive Dada, or Mama, especially within the context of the 1950s, is an affirmation of duality that is characteristic of queerness.

Katz presents a rich and layered argument, suggesting that Hamilton's artwork posits images of queer duality and that it participates in queer politics. I will explicate Katz's argument further in the context of Hamilton's Pop collage and propose that Hamilton moves from duality to nondualism within his later tabular paintings. The distinction between nondualism and duality is subtle, yet it opens onto increasingly varied and nuanced expressions of queerness. Rather an addendum to the discussion, queerness is the origin—and the very ground—of Hamilton's plasticity.

Before delving into the discussion of Hamilton's queer plasticity, it is necessary to explicate yet another contested term, and that is the very category of "Pop Art." The artistic movement is often characterized by artists' use of mass communication—and images of mass media, in particular. This connection is both historic, because Pop Art emerged during a boom in television and such cheap and portable communication technologies as the transistor radio, as well as epistemic, suggesting that Pop Art gains its identity, and its ability to produce meaning, from mass media. In his contribution to Lucy Lippard's 1966 volume *Pop Art*, British cultural critic Lawrence Alloway points out that

there is a double flaw in this argument.[154] Alloway notes that observing a mass image within a Pop artwork rarely leads the viewer to interpret the entire artwork as being solely about mass media. The whole is not defined by a singular pictorial element. An image of popular culture gains a new context and meaning when it enters the pictorial field. Even more significantly, Alloway suggests that "mass media" is never monolithic. Mass media as a singular concept is already plural because it shepherds multiplicity; it is an attempt to group cacophonous voices into a mass, whose shared identity is tenuous and full of friction. A gleaned image of popular culture is never a stable citation; it references a vast field of mass communication, with a multiplicity of channels and interpretations, as well as the possibilities for miscommunication or misreading. In a way, an artist's appropriation of mass media is already a misreading, a straying from the intended narrative or purpose, that, in its very gesture, contributes yet another layer of signification to its plurality.

Rather than buttressing the equation between Pop Art and mass communication, Alloway offers the following reformulation of the genre. He suggests that Pop Art is animated by the question: "How many kinds of signs can a work be at once?"[155] A question is a directed inquiry. It is also a motive or a drive. Alloway's singular question points to a drive for multiplicity at the center of Pop Art, not only in the way that an image of mass communication may operate within the pictorial field, but that the work itself may function as an elusive and plural sign, which exists in—and across—the

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[154] Lawrence Alloway, "The Development of British Pop" in *Pop Art*, ed. and lead author Lucy R. Lippard, (New York: Frederick A. Praeger Publishers, 1966), 27.
[155] Ibid.,

categories of Fine Art, popular culture, advertisement, public information, and personal narrative simultaneously.

Alloway suggests that discussions of British Pop should take into account the influence of Scottish artist Eduardo Paolozzi. Between 1941 and 1952, Paolozzi made a series of collages, collectively titled "Bunk," that feature advertisements for food, appliances, cars, films, etc., as well as pin-up pictures and news photographs. Paolozzi's Bunk collages are significant for the development of British Pop, and Hamilton's work in particular, both due to their use of popular imagery and because Paolozzi presented them during the first lecture of the Independent Group, which began meeting at London's Institute of Contemporary Art in 1952 and of which Hamilton was a key participant. In one collage from 1947, later titled *I was a Rich Man's Plaything*, Paolozzi uses a full magazine page featuring a lady-in-red complete with a lipstick grin and exposed stockings—a caricature of seduction, who is described as an "ex-mistress" and a "woman of the streets" in addition to the work's titular phrase [Figure 21]. Paolozzi then collaged crudely cut out images of cherry pie, a circle-enclosed brand name "Real Gold," and a hand shooting a gun, which is accompanied by a sound cloud "Pop!," directly onto the magazine page. The collage element containing the word "Pop!" comes from the packet of a toy gun, which suggests that the onomonopeia initially referenced a game of make-believe as the sound that a child would make verbally, or the click of a fake pistol.[156] Paolozzi uses the collage element as both a pictorial and narrative component, playing with it as a signifier of a child's game and an actual gun. It should be noted that Paolozzi

[156] "Sir Eduardo Paolozzi *I was a Rich Man's Plaything* (1947)" catalog entry in Tate Modern (Accessed September 4, 2018) https://www.tate.org.uk/art/artworks/paolozzi-i-was-a-rich-mans-plaything-t01462.

plays with the collage element's ability to signify multiple things by restoring—or perhaps foregrounding—the latent violence within the toy gun. In the collage, the gun now points straight at the woman, whose coy head tilt now appears as though she is turning away from the cocking of the gun, as well as the force of the "Pop!," which encroaches upon her pictorial space. The woman's seductive grin now doubles as a helpless grimace—the femme fatale is rendered as a victim.

Rather than facilitating a conversation between collage elements, Paolozzi creates his work by accumulating signifiers of heteronormative male desire and violence. Paolozzi most likely resorted to a tactic of accumulation because his collage elements are limited in their subject matter and source. He received the images from American servicemen stationed in London during World War II.[157] The bottom elements of *I was a Rich Man's Plaything* include a postcard of a fighter jet with the motto "Keep 'em flying!" and a Coca-Cola advertisement with the slogan "Serve at Home." As juxtaposed images, the signifiers for home and the warfront mirror one another. Each sells patriotism through the bland tone of motivational refrains. Perched above these wartime mottoes, the image of cherry pie comes to signify Americana and homesickness, while Paolozzi's collaging of the woman with a toy gun takes on additional tones of sexual frustration and fear of death.

In addition to the violence of Paolozzi's collage elements and the context of his sources, Alloway points out that the artist's approach to collage was one of destruction.

[157] Ibid. Published in *The Tate Gallery Report 1970–1972*, London 1972.

The word "collage" comes from the French word "coller," meaning to paste, glue, or stick. This etymology situates collage as an act of synthesis, of using adhesives, such as paste and glue, to unite disparate elements together into a new configuration. Paolozzi once stated that the word "collage" is inadequate to describe his practice because the concept should include "damage, erase, destroy, deface and transform—all parts of a metaphor for the creative act itself."[158] According to Paolozzi, collage is both creative and destructive because the production of a new image through appropriation is violent towards the original usage of the imagery. In Paolozzi's formulation, the act of destruction in the service of creation is normalized as necessary to the creative act. When considering Paolozzi's formulation of collage within the context of such "Bunk" images as *I was a Rich Man's Plaything,* it can be noted that the act of destruction within the service of creation is an integral component within the consciousness of normative masculinity. Paolozzi's application of the toy gun to the vixen's head erases any psychology or narrative that does not render her within the role of a submissive prop to male desire. Alloway makes note of the rough textures and edges within Paolozzi's "Bunk" collages to suggest that they imply "flux but also ruin."[159] Severed from their original contexts, collaged images of words, figures, and objects enter a semantic flux that opens them onto new meanings, yet Paolozzi's destructive gesture is ruinous in that it eviscerates their context and, through this, some of their potential modes of signification. Paolozzi's collage of ruin is informed by wartime hyper masculinity of the

[158] John-Paul Stonard, "The 'Bunk' Collages of Eduardo Paolozzi," 249.
[159] Lawrence Alloway, "The Development of British Pop," in *Pop Art*, Edited by Lucy Lippard (New York; Washington: Frederick A. Praeger Publishers, 1966), 35.

bunker, which renders him much more in line with early 20th Century Dadaists and Futurists, rather than Hamilton's affirmative—and queer—Pop.

In 1956, four years after Paolozzi shared his "Bunk" images in a lecture for the Independent Group, Hamilton created *Just what is it that makes today's homes so different, so appealing,* a work that is now considered an icon of Pop collage, as well as the genre of Pop Art in general [Figure 22]. Hamilton's collage depicts a living room as a Frankenstein's monster of American consumerism. The image is entirely constructed out of collage elements representing American brands and goods that were scarce in Britain, including such lifestyle titans as the Ford company, whose crest is stuck onto a lampshade in the far corner of the room, food items such as a large tin of ham that sits perched atop the coffee table, and state-of-the-art modern appliances ranging from a Stromberg-Carlson television to a Hoover vacuum. Even the title of the work comes from a 1955 advertisement in the *Ladies Home Journal*. The magazine had functioned as a favored way for the American government to influence housewives during World War II and continued to shape their spending habits in peacetime.[160] One housewife does appear in the work as part of the vacuum advertisement, yet she is not the main inhabitant—nor addressee—of Hamilton's consumer fantasy.

Two figures occupy the living room: a nude woman from an erotic magazine is collaged to sit on the couch while a photograph of Irvin "Zabo" Koszewski, a professional bodybuilder, appears in the foreground with a strategically placed image of a Tootsie Roll Pop over his barely-there speedo. Hamilton's modern day Adam and Eve

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[160] Emily Yellin, *Our Mothers' War* (New York: Free Press, 2004), 23.

unabashedly show off their bodies. The woman perks up her breasts in the optimal angle for visual pleasure while Zabo flexes his muscles. Hamilton's living room is a vast departure from the Victorian home with its emphasis on privacy and interiority. In the collage, the living room is visually constructed from, and metaphorically permeable to, communication media, including film, radio, newspaper, and television. Rather than autonomous agents, the symbolic first man and woman of the future resemble the objects that constitute their surroundings: just like the television set, Zabo and the woman occupy the public sphere, offering their bodies as objects of consumer desire.

Hamilton's collage is a deconstruction of the American dream of domestic abundance that he only knew through imported sources. Similarly to Paolozzi, Hamilton was drawn to American source material to create his collage because US popular culture symbolized a fantasy of consumer plentitude that was dramatically different from Britain's economy, which was slow to recover after the war. Despite this similarity with Paolozzi, Hamilton's selected images differ from the "Bunk" images in terms of genre. Paolozzi acquired his collage elements from American servicemen stationed in Britain and, therefore, the images reflect their interests and desires. Hamilton, meanwhile, received his sources images from artists John McHale and Magda Cordell, his friends and fellow members of the Independent Group, who travelled to the United States in 1956 and returned with a cache of magazines, comic books, pop-music records, movie posters, and printed advertisements for Hamilton. Though I aim to emphasize the differences between Paolozzi's and Hamilton's found images, it is important to note that both artists' engagement with US popular culture emphasizes Americanness as a prominent source

material within this historical period. During the 1950s, as US glossies propagated myths of abundance and the American dream, images of Americanness exhibited the duality of what historian Jeffrey Meikle describes as plastic's "two cultures," meaning that they signified artifice as well as vibrancy. Such images were ripe for artistic intervention, manipulation, and reanimation.

Hamilton acquired advertisements which depicted fantastic visions of attractive, joyous housewives surrounded by bright plastic kitchen accessories, smiling families snug in the vinyl seats of speeding cars, and modern homes outfitted with the latest in radios, vacuums, and televisions. Looking up from these glossy magazines in London, Hamilton observed the gap between the American dream and British reality. World War II's violent disruption was still visible in the fabric of the city and imprinted in daily rituals. Born to a blue-collar family in central London in 1922, Hamilton's own Pimlico sustained significant damage from air strikes, and the underground was still furnished to double as a bomb shelter. While the American housewife was depicted smiling with the ecstasy of abundance and comfort in magazines, the London Housewives' Association had only celebrated the end of fourteen-year food rations in 1954.[161] This economic disparity between Britain and the United States illuminates Hamilton's unique position to both deconstruct the fantasy of these images while simultaneously affirming their potential to address viewers and offer pleasure.[162]

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[161] "1954: Housewives celebrate end of rationing" in *BBC* (July 4, 2014) http://news.bbc.co.uk/onthisday/hi/dates/stories/july/4/newsid_3818000/3818563.stm.

[162] It is important to note that Hamilton's collage and tabular paintings coincide with major construction projects in London, with the development of the South Bank in particular. In an expanded version of this

Hamilton had requested that John McHale and Magda Cordell share their magazine loot for a collage, yet it is uncertain how many of the glossies he actually flipped through. Instead, he typed out a list of words that would serve as a program for the collage and asked his wife, the artist Terry Hamilton, and Magda to compile images that fit the categories. The list read: "Man, Woman, Food, History, Newspapers, Cinema, Domestic Appliances, Cars, Space, Comics, TV, Telephone, Information."[163] These broad categories delineated the women's search, yet did not necessarily direct them to amass the image groupings that appear within the final collage; the list does not presuppose the rich wit and dual roles found in the compendium of images that Terry and Magda painstakingly cut out of the magazines and separated into categories.

Restoring Terry and Magda's role in the collage uncovers a mode of women's labor that dates back to eighteenth and nineteenth century scrapbooking practices, where found images became preserved and repurposed in volumes that were then shared amongst friends and family members. Magda hosted Terry at her apartment for the activity, which spanned many hours of flipping through pages, searching after lost cutouts that cascaded to the floor, and cleaning up glossy scraps of paper, as well as conversing and laughing. Terry and Magda scanned magazines that were designed to interpolate them in a particular mode of consumption and femininity—the postwar housewife—in an oppositional and productive way; the two women read the advertisements against grain. This invisible labor is significant for analysis of *Just what is*

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chapter, I hope to consider how Hamilton's queer nondualism was influenced by urban development and the rise of youth culture in London.

[163] Richard Hamilton, *13. Just what is it that makes today's homes so different, so appealing?* (London: Tate Gallery, 1970), 149.

it because it reveals that the selection of collage elements involved numerous subject positions and desires. Hamilton may have curated the collage elements, but Terry and Magda compiled the images. Whereas the "Bunk" images reflect the exchange between the hyper masculinity of American serviceman and Paolozzi's subjectivity as a male artist, *Just what is it* eludes a singular author or even a uniform gender.

Despite its current status as an autonomous image, Hamilton created the collage for the exhibition catalog for "This is Tomorrow," which was held at the Whitechapel Art Gallery in 1956. Within the gallery space, the exhibit functioned as an anthology of twelve separate displays, with different artists collaborating on each room. For his contribution, Hamilton worked with John McHale and John Voelcker to construct a piece of fun-fair architecture: false perspective, soft floors, and black light within; the exterior covered with quotations from popular culture, including Marilyn Monroe, a giant beer bottle, and a seventeen-foot-high cut-out robot with a girl from a movie marquee advertising *Forbidden Planet*. In his article "Dada's Mama: Richard Hamilton's Queer Pop," Jonathan D. Katz points out that the cohort's display features two iconic gender constructions, that of the archetypal female victim and Marilyn Monroe as a symbol of celebrity and sex, which suggests that the group was interested in the constructed nature of all gender signifiers. Katz makes this argument through close reading of Hamilton's collage *Just what is it*, as well as its context within the exhibition catalog for "This is Tomorrow."

Significant for Katz's analysis is the image that Hamilton chose to face his collage on the accompanying page, and which would graze its surface when the catalog

remained closed. Across from *Just what is it*, is an unnamed black-and-white optical illusion from 1921 book by the Danish gestalt psychologist Edgar Rubin.[164] This detail is frequently overlooked within scholarship on Hamilton and *Just what is it*, but Katz proposes that this optical illusion serves as the Rosetta stone to Hamilton's archly ironic art making.[165] Both the optical illusion and Hamilton's collage were first reproduced in the catalog in black and white, which would have heightened their similarity, perhaps even inviting viewers of the catalog to interpret *Just what is it* as an image to be deciphered through the cognitive and visual play of the accompanying illusion [Image]. Rubin's image features two shapes—one white and the other black, yet it is uncertain whether the white juts into the space of the black, or if it is the black shape that penetrates the white. The image plays with the viewer's perception of figure and ground because interpreting the illusion involves either identifying the white shape as the empty space with the black shape acting as a figure, or the black playing the role of the ground to the white mass. Famous for his experiments with figure/ground relations, Rubin revealed vision as only a part of a much broader cognitive process generalized as "seeing." Katz points out that Rubin's paradigmatic illustrations, such as the one Hamilton selected, were intended to demonstrate that cognition always supersedes the senses by recognizing patterns to fill gaps and missing data.[166]

[164] As pointed out by Jonathan D. Katz and Karen Westphal Eriksen, the image is the second illustration in Edgar Rubin's Visuell Wahrgenommene Figuren: Studien in psychologischer Analyse, Copenhagen, 1921, 261. Rubin is most famous for the "Rubin vase," an image which can be interpreted as both two faces seen in profile or a vase.
[165] Katz, 337.
[166] Katz, 340.

Katz further argues that Hamilton's inclusion of the Rubin image reveals the artist's ethical concerns. According to Katz, Hamilton's artistic practice centers on the viewer having to make their own meaning, and that this deferral of authoriality operates through Hamilton's deconstruction of gender. Following Katz's reading, black and white shapes encounter one another through penetration, yet it is uncertain which is the cavity and which is the phallus. The image evokes a sexual union, but it is difficult to attribute gender to the individual parts or ascribe dominance, or primacy, to either. It is up to the viewer to interpret the image, and perhaps allow both interpretations to oscillate back-and-forth as one shifts between reading the white and black as either figure or ground. For Katz, the illusion serves as the Rosetta stone to Hamilton's ironic and critical practice because it can be read as a symbol of the instability of the gender binary, and, therefore, queerness.

In *Just what is it*, gender re-emerges not as natural, but as a kind of collaging together of signifiers from available components. Katz points out that Hamilton's main signifier of maleness is also decidedly queer. The bodybuilder Irwin 'Zabo' Koszewski, winner of the third prize in the Mr. American Competition, appears photographed by Bruce of LA, an icon of gay male figurative photography in the 1950s.[167] Katz observes:

> That a figure for Hamilton's collage for *This is Tomorrow* was
> itself cut out of the gay magazine *Tomorrow's Man*, one of a number of
> similar 1950s so-called posing strap magazines produced
> for the budding gay soft core market, is one of the little felicities

[167] In the article, Katz includes the following citation: John Paul Stonard, "Pop in the age of boom: Richard Hamilton's "Just what is that makes today's homes so different, so appealing?", *The Burlington Magazine*, September 2007, 618-619. Stonard thanks John McHale Jr. for bringing Koszewski's identity to his attention and notes that the identification was first published in D. Waldman, *Collage, Assemblage, and Found Object*, London, 1992, 269.

that Hamilton, I suspect would have adored.[168]

Hamilton's work is frequently witty, and he would go on make *Slip it to Me*, perhaps the best example of his queer humor, but it should be noted that Zabo appears in the collage through a collaborative effort of not just Hamilton, but also of Terry and Magda, who most likely selected the bodybuilder, tracing his outline with their scissors. Zabo is a nexus for desire, and the viewer may derive pleasure while looking at him regardless of their gender.

Just what is it is a participatory image that waits for the viewer to see themselves within it. Though it first appeared reproduced in black and white, color opens up even more levels of meaning and possibilities for interpretation within the image. When the work appears in color, the black-and-white naked bodies of Hamilton's Adam and Eve pale in comparison to the bright colors of commodities and inanimate objects. Rather than Zabo's muscular body, it is his pop that may attract the most attention. Hamilton strategically placed an image of a Tootsie Roll lollipop over Zabo's speedo, introducing a splash of color, as well as a sexual innuendo of Zabo's enlarged phallus, and an onomonopeia of a "pop" of sound. This colorful lollipop is at the center of Hamilton's cornucopia of consumer goods and though it is an object of consumption, it also functions as an extension of Zabo's masculinity and a sonic disruptor. Perhaps it is more accurate to describe *Just what is it* as a work that "pops," or explodes naturalized meaning to welcome plurality of interpretations, than as an early example of Pop art—a term that is both anachronistic and dismissive of Hamilton's affirmative aesthetics.

[168] Katz, 342.

More so than in Rubin's simple optical illusion, which does rely on the either/or mechanism of the optic nerve, Hamilton's collage elements initiate an oscillation that never resolves into a singular meaning. Having been in attendance at Paolozzi's lecture for the Independent Group in 1952, Hamilton would have seen of the senior artist's play of signification between a toy and a gun in the "Bunk" collage *I was a Rich Man's Play Thing*. Whereas Paolozzi limits the playfulness of his collage element to violence by rendering it as a weapon against a woman, Hamilton affirms the multiplicity of signification. In *Just what is it*, the "pop" is once again pointed at a woman, but this time it is not easily legible as a gun. Given Hamilton's keen admiration of Paolozzi's work, the "pop" collage element pointing at the woman is more than a coincidence or a visual echo; Hamilton engages with Paolozzi's work through a chain of signifiers. Gun, weapon, toy, lollipop, and penis—and perhaps a queer one at that—enter a chain of references that opens meaning-making while reducing the gun's threat to the woman. In Hamilton's collage, the "pop" bursts naturalized meaning and the gender binary—the real victims of the playful explosion of signification. A flickering of difference explodes the very binary system upon which Hamilton curates his modern living room. Like a kaleidoscope, in which one bead turning will affect the formation of the entire pattern, Hamilton's disruption the binaries of male/female, exterior/interior, public/private, impacts the entire configuration of social relationships. The collage is a study of not just the plural of the two, but of exponential plurality. Significantly, it is the instability of the gender binary that pops and explodes the container of the living room. Gender-play lies at the heart of the question posed by the title "Just what is it that makes today's homes so different, so appealing."

Hamilton was not the only artist in interested deconstructing the gender binary in *This is Tomorrow*. Richard Matthews, for instance, designed a poster to advertise the exhibition by approaching signifiers of gender as malleable graphic elements. The poster depicts a red background with scattered "+" and "o" shapes [Figure 23]. In certain places the two shapes are completely separate. At times, two "o"s meet to form an infinity symbol; sometimes the "+" functions as a literal "plus sign" joining two or more "o"s into a cluster. Occasionally, an individual "o" and "+" join together. When the two shapes are fused, it becomes apparent that they are the parts of the Venus symbol. Thought to represent the goddess's brass mirror and its handle, the Venus symbol is an astrological sign that denotes the female gender. Against this background of coupling, congregating, and drift, Matthews placed the exhibition's title and date within a large cluster that is particularly notable. A large black circle is simultaneously penetrated with a plus sign and a thick diagonal line that extends beyond the poster's frame. The plus sign meets the circle at an angle, its tilt makes the female symbol appear that much more precarious, circumstantial, and in flux. Meanwhile, the diagonal line is a distinctive element of the poster; its angle evokes the arrow of the Mars symbol, an astrological sign affiliated with maleness. Rather than belonging exclusively to either element, the circle is the shared link between the dynamic Venus symbol and the incomplete Mars sign.

The poster presents gender as a cognitive illusion; it is up to the viewer to read the composition as either the sign for male or female, or perhaps an entirely new manifestation of the gender spectrum. Given that this diagonal line is the only suggestion of the male symbol within the entire poster, and that it remains incomplete, it must be

noted that free-floating signifiers of the female gender dominate Matthews's design. Yes, gender may be transforming, but the poster design seems to suggest that these new configurations will be decidedly more feminine than masculine, more protean than divisive. To read the plurality of the sign in the foreground is to imagine a synthesis of genders. It is an affirmation of a "tomorrow" in which gender does not conform to binary logic and eludes the violence of being reduced to the category of either male or female.

The prevalence of gender play on the exhibition poster takes on added significance within the context of the actual structure of the Independent Group, which was a collective of individuals who freely shared ideas and their research findings in evening lectures and colloquia, yet were nevertheless committed to developing unique practices. Initiated by the artchitects Allison and Peter Smithson, a husband-and-wife team—itself a pairing of maleness and femalleness within a working creative relationship—the Independent Group resisted the conservatism of the entrenched academy system, as well as the emerging corporate model of architectural firms, because both demanded that a person become either subsumed into an organization or identify oneself as a singular author through a process of self-branding. Indeed, the very name "independent group" suggests that the unit positioned itself counter to any existing hegemonic organizations, while also evoking a gathering of people who retain their personal identities even as they contribute to the assemblage. In *This is Tomorrow*, the Independent Group's model of participatory autonomy became spatialized: each room of the exhibition was curated by smaller partnerships, comprising of two or three members, without any room needing to cohere into a unified vision. Given this creative freedom, it

is that much more striking that gender emerges as the overarching motif of the Independent Group's exhibition. The prevalence of gender deconstruction throughout *This is Tomorrow* exposes gender as malleable, and this plasticity is the very ground of both creative individual expression and the liberatory politics of the collective. In the case of the Independent Group, exploring the plasticity of the binary and playing with gender led to ever-greater political and creative freedom.

Hamilton's collage and Matthews's poster operate on the level of signification, which limits their exploration of gender to that of text, rather than actual flesh and physical matter. Hamilton curates an image that embraces contradiction. This is operative of postmodernism and is a leading tool of deconstruction because it privileges the act of reading as a mode of deciphering and translation. One can certainly think in contradiction, but can one live in contradiction? Skin and flesh sense plurality differently than the structure of binary thinking and the on-and-off zapping of neurons. To orient one's body within a constellation of contradiction is to embody a node of intersectionality. Lived contradiction becomes intersectional—messy, circumstantial, subject to change; one is sometimes more legible as one identity than another, but always both/and. Hamilton's decision to include Rubin's optical illusion alongside his collage is significant because it points to the artist's interest in bodily physiology, which is affected by internal health factors and external environmental influences. Indeed, when the collage is seen in color, it becomes apparent that what the optical illusion most closely resembles is the rug within the living room, with its pattern of black and white and interlocking shapes.

The rug is the one—if not only—collage element that does not derive from American magazines. Placed in a scene brimming with bold text, bright colors, bare bodies, and recognizable brands, the black-and-white rectangle does not lend itself to easy identification or consumption. The rug seems to evoke Abstract Expressionism because the black and white marks are nonfigurative, but its overall pattern eludes the composition of a single authorial source. Despite its alien status, the rug is crucial for the construction of depth in the collage: It ties the room together. Though abstract, the image-cum-rug does not lack a referent. At the time of Hamilton's retrospective at the Tate Gallery, London in 1970, art critic and author Richard Morphet pointed out that many of the elements in the collage escape one-to-one or sarcastic appropriations of popular imagery that would become characteristic of New York Pop Art. Morphet specifically honed in on the ceiling and the carpet in Hamilton's constructed living room, stating:

> What looks like a marbleized ceiling is a photograph of the earth taken by an early altitude research rocket; what looks like a length of mass-produced carpeting is a photograph of hundreds of people on a beach, deliberately symbolizing the mass of humanity.[169]

A photograph of Earth from outer space would not be taken until 1972, yet Hamilton's prescient ceiling serves as the structural counterpart to a distant view of people on a beach in England. In the collage, two images of shared humanity make up both the ground and the ceiling of the modern living room.

Humanity is the fabric—and the very ground—upon which the consumer paradise of *Just what is it*, as well as its deconstruction of gender, takes place. The shifting scales

[169] Richard Morphet quoted in "Introduction" of *Richard Hamilton* (New York: The Solomon R. Guggenheim Foundation, 1973), 11.

underscore the spatial complexity of Hamilton's construction, which begs the question: where is the viewer as they peer into the living room? They are a participant within an oscillating constellation of image-objects delineated by the whole of planet earth and a ground of shared humanity. Hamilton seems to suggest: as above, so below. British Pop Art is often discussed as cool and analytic, yet Hamilton's distance here functions to bring the viewer closer to their relational ontology: to be alive is to cohabit a shared space and become accountable for others, even if their identity remains unknown. This photographic carpet foreshadows Hamilton's later series, the 1965-1966 *Bathers,* and would remain a key image in Hamilton's repertoire until the end of his life. In its resemblance to Rubin's illusion, Hamilton's photographic carpet reveals the artist's interest in affirming human life as the very ground of art. In *Just what is it*, changing gender norms emerge from a photographic ground, a signifier for actual human bodies.

Since the 1950s, human bodies were indeed transforming due to the production and consumption of synthetics. In addition to the invention of new materials, namely plastics, synthetics polymers offered unprecedented conceptual possibilities for chemists. Observing that petroleum-based plastics could substitute such long entrenched industries as steel and glass, scientists began imagining the extent to which the human body could break free from its natural limitations. During the 1950s, General Electric scientists aimed to create—and cater to—the ultimate machine: the "synthetic man." A 1958 report features the following claim:

> We now know this must be possible, since in living organisms all of the functions in question, namely, the detection, transmission, and the storage of signals, the conversion of light to chemical energy

> and vice-verse [sic], and the conversion of chemical energy to electrical and mechanical energy, are known to be performed by polymers.[170]

The report reveals that polymer research was becoming intimately tied to the conceptions of the human body as something that could be altered through chemistry. The GE scientists understood that research in plastics could be applied to biological engineering because polymers share behaviors and structures. They therefore explored the following proposition: If the proteins found within the human body are already polymers, then perhaps these natural polymers could be improved upon with novel, more durable, and increasingly flexible—and synthetic—polymers.

This report is slightly anachronistic to a discussion of Hamilton's *Just what is it* and Pop Art both because General Electric was based in the United States rather than Britain, and because such chemistry reports were not readily available to the general public, therefore precluding them from the category of popular culture. However, the report describes a dystopian corporate fantasy that does have some basis in material reality. Considering the politics, science, and economics of a chemical like bisphenol A reveals that anyone born since the late 1950s is molecularly bonded to one other, and transformed in terms of the gender binary. Commercially in use since1957, bisphenol A is a starting material for many plastics, including epoxy resins and polycarbonates, and takes the form of such ubiquitous consumer objects as the plastic water bottle. Bisphenol A has the ability to act like—or mimic—the hormone estrogen, meaning that it can take

[170] Peter Cannon, Paul H. Kydd, and John F. Brown, Jr., Chairman, "The Scientific Opportunities in Chemistry: A Forecast for the Decade 1958-1968," First Report of the Long-Range Planning Group for the Chemistry Research Department, June 30, 1958, 89, General Electric archives, Schenectady Museum and Archives, Schenectady, New York.

the place of estrogen within chemical reactions. Within this seemingly simple act of defining the chemical as mimicking estrogen, the distinction between natural and synthetic dissolves. The mimicry deconstructs any natural relationship between estrogen and the female gender: there is no biological foundation to gender since female characteristics can manifest as estrogen or bisphenol A. This molecular mimicry introduces aesthetics to the science of biological engineering, marking a synthesis of art and science.

Men born since the 1950s have higher levels of "estrogen" due to the prevalence of bisphenol A within the environment. Here, ideology has a material basis as the human body is not merely disciplined through institutional structures or rhetoric, but actually manipulated through hormones. In the 2008 *Testo Junkie*: *Sex, Drugs, and Biopolitics in the Pharmacopornographic Era*, Paul B. Preciado argues that the pharmaceutical industry, pornographic industry, and late capitalism are all integrated to regulate and control cycles of reproduction. Observing the effect of testosterone on their transitioning body, Preciado's documented the extent to which hormones, as well as their regulation, shape human bodies and their desires. Preciado observed:

> In the 1950s, which were confronted with the political rise of feminism and with homosexuality, as well as the desire of 'transvestites,' 'deviants', and 'transsexuals' to escape or transform birth sex assignment, the dimorphism epistemology of sexual difference was simply crumbling.[171]

[171] Beatriz Preciado, *Testo Junkie: Sex, Drugs, Biopolitics in the Pharmacopornographic Era* (New York: The Feminist Press at CUNY, 2013), 103-104.

An analysis of plastics extends Preciado's argument from such obvious sites of ideology as the pornographic industry and Viagra advertisements to the insidious, as well as the seemingly harmless and asexual, materials as rubber pacifiers and home insulations. While Preciado's argument focuses on adult consumers of ideology, studying the effects of bisphenol A reveals that all persons exposed to synthetic polymers have become molecularly queer—regardless of their sexuality. The binary of male and female is no longer a reality even at the level of biology. Yes, there may still be two dominant poles of genital expression, but those born since the late 1950s fall within a spectrum of biological sexual difference at the level of hormones.

David J. Getsy engages with Preciado's argument and applies it to an analysis of 1960s sculpture in his book *Abstract Bodies: Sixties Sculpture in the Expanded Field of Gender*. Despite his focus on the 1960s, Getsy begins his book by pointing out that gender identities and their distinction from biological sex began to be more publically contested since the 1950s. Christine Jorgensen became the first publically disclosed case of reassignment surgery in the United States in 1952. Indeed, Jorgensen was the most written about story in 1952—a year that hydrogen bombs were being tested in the Pacific, war was raging in Korea, and Jonas Salk invented the polio vaccine.[172] This newly publicized ability to change sex and unhinge gender from biology radically transformed the idea of gender from dimorphic fixity to one of openness and transformation.

[172] David J. Getsy, *Abstract Bodies: Sixties Sculpture in the Expanded Field of Gender*. (New Haven and London: Yale University Press, 2015), 31.

Observing the popularity of the topic, Getsy poses a provocation to the discipline of art history. He asks: "In a decade when the idea of gender emerged and was transformed radically, why would one not see in art history a parallel openness or unfixity?"[173] Getsy's challenge is also a provocation of queer politics within the discipline. He observes that queer politics and theory frequently seek to trouble sexuality while leaving the binary and deterministic models for gender largely intact. To avoid these traps, Getsy proposes a methodology for analysis that is informed by transgender studies, because transgender disrupts homonormativity and dimorphism to show gender as fluid.[174] Getsy acknowledges that the term "transgender" only gained currency in the 1990s, but suggests that there is a way of applying the methodology without projecting present-day understandings of transgender identities onto the past. Echoing the work of Jack Halberstam, Getsy's call-to-action is to "recognize and make space for all of the ways in which self-determined and successive genders, identities, and bodily morphologies have always been present thorough history as possibilities and actualities."[175]

Focusing on sculpture of the 1960s, Getsy argues that abstraction offered artists a way to reconsider gender's multiple capacities. Abstraction opened sculpture onto multiplying genders, mutable morphologies, and successive states of personhood, as well as activated the viewer's bodily and affective relations with those of sculptural objects.[176] In addition to abstraction, temporality plays a central role in Getsy's analysis. While

[173] Ibid, 31.
[174] Ibid, 36.
[175] Ibid, 35.
[176] Ibid., 34.

abstraction offers an image of openness, temporality is central to definitions of transgender's embrace of non-binary, unique, or recombined gender potentialities. Getsy points out that Susan Stryker has nominated the transformative movement as crucial to wider application of transgender studies. By taking the term's defining trait as "the movement across a socially imposed boundary away from an unchosen starting place," transgender gains its identity through movement, as opposed to any particular starting point, destination, or mode of transition.[177] Getsy's application of a transgender methodology to the work of David Smith, John Chamberlain, Nancy Grossman, and Dan Flavin is incredibly compelling because it reanimates 1960s abstract sculpture in terms of gender. Transgender methodology illuminates Richard Hamilton's tabular paintings, which also foreground abstraction and temporal transformation—just in the medium of painting.

After making *Just what is it*, Hamilton continued to search for a surface that would serve as the appropriate container to explore the changing fabric of human relations. Hamilton also needed an equally malleable surface within which to stretch the gender binary. Observing Hamilton's work during the 1950s, William R. Kaizen has argued that Hamilton created "tabular images," or images that "held in suspension both the images [that they] present and the generative structure used to build those images."[178] Here, it is worthwhile to consider what Kaizen means by the "generative structure." Soon

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[177] Ibid., xv.
[178] William R. Kaizen, "Richard Hamilton's Tabular Image" in *October*, Vol. 94, The Independent Group (Autumn, 2000), pp. 113-128.

after *Just what is it* debuted at the Whitechapel Gallery, Hamilton wrote the following in a letter to his friends Alison and Peter Smithson:

> Pop Art is: Popular (designed for a mass audience)
> Transient (short-term solution)
> Expendable (easily forgotten)
> Low cost
> Mass produced
> Young (aimed at the youth)
> Witty
> Sexy
> Gimmicky
> Glamorous
> Big Business[179]

Read from left to right, the list of words seems to define the distinctive proper name "Pop Art." Yet this would be slightly anachronistic: it was only in 1956 that art critic Lawrence Alloway began using the term "popular art" in his writings. Perhaps the list could function in another way, one similarly to that of Hamilton's program for the collage, which he gave to Terry and Magda before they rummaged through the trove of magazines. Pop Art emerges from these categories, which together characterize the structure of postwar western society. Looking around, Hamilton observed the rise of a mass audience through such new technologies as the television and the transistor radio, the postwar brand of sexiness that looked to the youth to set and consume trends, and the encroachment of big business as sponsors of art exhibits. An artist who engages with these phenomena produces Pop Art.

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[179] Richard Hamilton in letter to Alison and Peter Smithson, "1957" in *Richard Hamilton*, ed. Mark Godfrey, Paul Schimmel, Vicente Todoli (London, Tate Publishing, 2014), 312.

In this letter, Hamilton also identifies an aspect of Pop Art that seems at odds with the notion of a shared humanity: the embrace of the transient and expendable. It is here that one of the most glaring differences between Andy Warhol's and Hamilton's approach to Pop Art. While Warhol embraced and enacted the fleeting, throwaway quality of popular culture by repeatedly painting or screen-printing an image until it reached paradoxical fame and utter banality, Hamilton created artworks out of the very *material* structure of consumerism. In "The Hamilton Test," Hal Foster points out that Hamilton engages with a number of different image formats, including postcards, magazine advertisements, publicity stills, fashion shoots, as well as soft-porn centerfolds, which is the subject of Hamilton's 1961 *Pin-up* [Figure 24].[180] Looking at these different image formats, Foster suggests that Hamilton's tabular paintings test whether all images can be "assimilated into the fine-art consciousness."[181] Building off of Kaizen's work, Foster argues that Hamilton arrived at tabular painting as a generative structure that could "absorb different kinds of surfaces, including those that were printed or electronic."[182] Foster's analysis is useful in considering Hamilton's tabular paintings as a dynamic painterly surface in which different images coexist, yet it makes a glaring omission: these artworks feature a range of materials in addition to paint.

Indeed, plastics play key roles in Hamilton's tabular paintings and to overlook the synthetic material is to erase their queer potential. Hamilton's 1962 *Pin-up*, for instance, is a mixed media work exploring the female nude, a traditional subject of Western art,

[180] Hal Foster, "The Hamilton Test," in *Richard Hamilton* (London: Tate Publishing, 2014), 170.
[181] Hamilton, *Collected Words*, 35.
[182] Foster, 172.

though here constructed as a collage of poses, costume, and images drawn from such contemporary sources as *Playboy*. A central component of the work is a sculpted piece of plastic, which Hamilton adhered to the surface to evoke the exposed breasts of the pin-up model [Figure 25]. Again Hamilton is toying with gender normativity through his choice of material. The breasts are a signifier of sexuality that juts into the space of the viewer, demanding affective response. Once again, sex pops the picture plane to confront the viewer. To interpret the breasts as belonging to a female Pin-up is to interpret the tabular painting in terms of heteronormative gender. Just as the lollipop in *What is it* functioned as a loaded signifier that affirmed, rather than foreclosed, interpretation, the breasts can be interpret in terms of other possibilities, including the male scrotum or an assemblage element that introduces further abstraction into Hamilton's work. Because it is an addition, the shaped plastic also functions as a breastplate, an accessory used by men for drag, suggesting that gender itself might be plastic—something to be realized through the performance of gender rather than biology. Hamilton incorporation of plastic was a decision to introduce a material element that signified mutability and multiplicity, as well as one of transformation, and perhaps even transness, or the condition or quality of being transgendered. To overlook Hamilton's use of plastic is to dismiss their three-dimensionality, a quality that necessarily evokes bodily relations.

In another work, *$he*, the nude's body is even more fragmentary than in *Pin-up*. The figure is barely legible within an array of consumer items that surround her, including an open refrigerator, a Pepsi-Cola bottle, and an amalgam toaster-vacuum, which Hamilton described as "toastuum," in the foreground [Figure 26]. Instead of a

body, the fragmentary figure consists of one winking eye, an airbrushed hybrid form that is simultaneously a shoulder and a breast, and an applied plywood board shaped to suggest a curvy backside [Figure 27]. Hamilton derived this final detail from a photograph of Vikky (the back) Dougan from Esquire Magazine, in which Dougan shows off her famous asset while wearing a custom dress, concocted by her publicist Milton Weiss. The white plywood relief evokes the deep plunge of Dougan's backless dress, yet there is no evidence of Dougan's body within the already revealing gown. Black paint delineates the plywood relief as an inversed silhouette: instead of shadow against light, the relief element is a white abstract form. A well-known sex symbol, Dougan's iconic derriere is a signifier of sex on its own, yet Hamilton does not stop there. Above the plywood, Hamilton airbrushed a hint of a shoulder, neck and breast from a frontal perspective. The shadow at the nape of the neck echoes the darkening of the areola: nipple and neck, two erogenous zones, offer themselves for the viewer's ocular pleasure. Simultaneously facing front and back, the "figure" in *$he* is not even a body without organs. *$he* offers a surface of sexual titillation, in which "woman" only emerges as a concept—a fantasy that the viewer gets to supply.

The "she" is not so much a gender pronoun as it is a consumer identity. After all, what makes "she" not a "he" is money; it is the dollar sign "$" that evokes the letter "S" and $he's identity as a woman. The dollar sign turns the male into a female, or, perhaps, mediates a relationship of exchange between the two. Hamilton remarked of *$he*: "Sex is everywhere, symbolized in the glamour of mass-produced luxury—the interplay of fleshy

plastic and smooth, fleshier metal."[183] Money is also everywhere, yet nowhere, within *$he*, much like the female body and sex. Within a tabular painting featuring a nipple alongside a vacuum cleaner, it is not a leap to note that sexual pleasure is equated with money, and money spent on consuming novelty in particular—a hallmark of capitalism. To read *$he* as a flat image is to participate in an economy of insatiable desire, which demands new stimulation. Here it is worthwhile to note that Hamilton's hybrid shoulder-nipple is airbrushed in cellulose paint, meaning that he maintained physical distance between himself and the surface of the canvas. Hamilton created his erogenous fantasy within the gap between the canvas and himself. Because markers of the artist's hand are absent from this technique, Hamilton's airbrushed form remains out of reach. Its ability to address—as well as defer desire—desire is inexhaustible.

Hamilton addresses the viewer's sense of touch through the application, which he describes as follows: "The relief retains some subtleties of modeling which are not perceptible in the photograph—in fact, they can best be explored by sensitive fingers than the eye."[184] Plywood, a reinforced wood, introduces a different economy within *$he*. Whereas the airbrushed hybrid form appears to promise multiple pleasures simultaneously, the plastic relief invites sensual exploration. If one were to trace the relief with their fingers, it would become apparent that the plastic is an attachment. Just as in *Pin-up*, where Hamilton's most loaded signifier of sex—the exposed breasts—double as a queer appendage of the breast plate, so too, Miss Dougan's iconic backside

[183] Richard Hamilton, "An exposition of *$he*" in *Richard Hamilton: Collected Words* (London: Thames and Hudson, 2001), 36.
[184] Hamilton, "An exposition of *$he*" in *Collected Words*, 38.

can double as padding used for drag performance. If the relationship between "he" and "she" is not mediated through money and ocular pleasure, but rather the sense of touch and gender performance, then perhaps alternative economies of pleasure exist.[185]

Hamilton worked on *$he* between 1958 and 1961, only concluding it after receiving a holographic plastic eye from his friend, the German designer Herbert Ohl. Thrilled by the gift, Hamilton attached the eye at the top of the panel, roughly where one would expect to locate figure's face. Though it is impossible to capture in a photograph, the plastic attachment allows *$he* to winks at its viewers—a flicker of movement evoking the flirtation of a movie starlet and scheming of a used car salesman. Who is winking here? If there is no body, and, therefore, no "who" in *$he*, then perhaps the question is: what is winking? Plastic winks, and perhaps Hamilton's "knowing consumer" is only starting to get in on the joke.

In 1964 Hamilton was preparing for his solo show at the prestigious Hanover Gallery in London. This career milestone was to mark the first showing of *Pin-up* and *$he* in the artist's native city, and the paintings' plastics were crucial to distinguish Hamilton's approach to Pop Art from that of the New York contingent and its growing notoriety. Hamilton wrote to his dealers William and Noma Copley, who lived in New

[185] This discussion of *$he* can be extended to the following quote from Hamilton's *Collected Words*: "The refrigerator stands for major appliance, the small mobile units are incorporated to extend the range to minor. They also provide the opportunity for a plastic elaboration, which gratifies my own aesthetic needs. The ad for the Westinghouse vacuum cleaner 9 demonstrates an endearing characteristic of modern visual technique, which I have been at pains to exploit—the overlapping of presentation styles and methods. Photograph becomes diagram, diagram flows into text. This casual adhesion of disparate conventions has always been a factor in my paintings. I want ideas to be explicit and separable so the plastic entities must retain their identity as tokens. The elements hold their integrity because they are voiced in different plastic dialects within the unified whole."

York and also owned *Pin-up* and *$he*, requesting that they send the two paintings in their collection to London. In March 1964, only four months before the show was set to open, William Copley looked at *$he* and *Pin-up* and observed that the plywood in both paintings had lifted and *Pin-up* displayed a prominent crack across its chest. He urged Hamilton to investigate use of plywood in artwork, as well as new plastics, resinous glues, and emerging conservation techniques to avoid warpage. Copley signed his letter fondly, with "masses of love."[186]

Hamilton was shocked to discover that his materials—so crucial to his compositions of contemporary life—had not survived two years.[187] His selected plastics betrayed an inherent vice, meaning that transformation and decay were intrinsic components of their materiality, which resisted Hamilton's authorial program. Hamilton attempted to counteract these material transformations by quickly experimenting with plywood, the acrylic glass Perspex, and mixing different plasticizers. In this crash course in the materiality of plastics, Hamilton took on the role of his own conservator—an act that reveals he was invested in retaining the material presence of plastic in his artwork. Time constraints forced him to seek help from conservators at The Hague in the Netherlands, where plasticizers were incorporated into the paintings to allow the materials to expand with temperature and time without warping. Hamilton's problem was unprecedented: few artists used consumer synthetics before the 1960s and the iconic early plastic artworks of Naum Gabo, Antoine Pevsner, and László Moholy-Nagy featured

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[186] "William Copley letter to Richard Hamilton," (March 23, 1964) Getty Research Center Archives: Richard Hamilton.

[187] "Richard Hamilton letter to William Copley," (April 1964) Getty Research Center Archives: Richard Hamilton.

more durable industrial plastics as Plexiglas. In consulting with the conservators, Hamilton learned that everyday materials were not only becoming increasingly complex in social function, but also in more complicated in molecular structure and material behavior. Each selected synthetic material—whether acrylic paint, celluloid holographic eye, or thermoset plastic breastplate reacted differently to the added glues and paints, as well as temperature changes, humidity, ultraviolet light, and storage conditions.

Pin-up and *$he* arrived in London by way of New York, Paris, and South Holland in time for the opening. The exhibition was a visible success and turning point for Hamilton's career, resulting in critical approval and sales of such works as *What is it that makes today's homes so different, so appealing?* Yet Hamilton's problem with plastic was not entirely solved: the crack across the breast of *Pin-up* became visible again due to the temperature changes in the Hanover. Hamilton sanded and repainted *Pin-up* before sending it back to the Copleys, who were eager to exhibit the painting at an upcoming show in Pasadena. From then on, the exhibition of Hamilton's now iconic work would go hand-in-hand with the conservation of plastics—a pairing ensuring that *Pin-up* and *$he* remain simultaneously historical and contemporary.

If, according to Marshall McLuhan, the medium is the message, it is worthwhile to consider the message, or messages, offered by the medium of plastic. A plastic object is a medium within the medium of painting. A world within a world, the medium of plastic signifies transformation within the frame of an artwork. Of course, McLuhan's statement is a provocation and reflective of the pleasure found in the medium of language. He frequently played with the plasticity of language through a series of puns on

"message," including "mass age," "mess age," and "massage." Within the medium of painting, plastic comes to signify this linguistic plasticity, becoming an unstable, yet affirmative, signifier of the physical material of plastic and the Fine Art category of the "plastic arts." The plastic components in Hamilton's tabular paintings are abstract, which identifies them as aesthetic objects, and sensitive to temporal transformation, therefore forming a bridge between the pictorial surface of the painting and the physical world of the viewer. In Hamilton's tabular paintings, plastic materials are gleaned and salvaged—a gesture of care much different from Paolozzi's formulation of collage as a creative act predicated on destruction. *Pin-up* and *$he* continue Hamilton's project of Mama, an affirmative practice that is integrative and synthetic. The tabular paintings figure Mama as all-encompassing of past, present, and future genders, which will continue to transition and transform, just like the materials comprising their abstract, open-ended bodies.

To read the figure of *Pin-up* and *$he* as either female or as a male performing femininity forecloses the full spectrum of gender expression. Acknowledging the possibility of gender as a process, rather than an end point, affirms future bodily configurations of gender, and this cultivation of possibility has ethical and political, not just theoretical, aims. The plasticity of Hamilton's tabular paintings, which gather different materials and signifiers of gender into an explosive synthesis, opens onto future configurations of gender expression. To affirm the amplified possibilities of gender in Hamilton's tabular paintings is to affirm the survival of those viewers rendered most vulnerable by the violent reduction of gender to a binary. Synthetics explode, or pop, the gender binary. Restoring the explosive plasticity to Hamilton's tabular paintings

encourages the survival of those who will one day see themselves anew within the malleable surface of Mama's affirming, protean embrace.

CHAPTER 4

Ambivalent *Signs of Love*:
Ree Morton's Installation Art of Joyful Contamination

Ree Morton's *Signs of Love* has baffled critics since the work was first installed at the University of California, Santa Barbara in 1977. A large scale installation spanning two adjacent walls and the floor, *Signs of Love* features such motifs as brightly colored ladders, roses, ribbons, and paintings, most of which are sculpted out of the plastic material Celastic, alongside such phrases as "pleasures," "moments," and "gestures" [Figure 28]. Though the work is the culmination of Morton's rigorous exploration of the gallery space as an environment, critical responses tend to describe its affective excess without any further engagement. Curator and scholar Michael Auping pronounced the work a "poetic valentine brought to stage-set proportions" when it was installed at UC Berkley's University Art Museum in 1978"—a sentiment echoed in 2011 by a *New York Times* critic, who suggested that the work "look[ed] depressingly like a Hallmark valentine."[188] When *Signs of Love* appeared in the 1980 retrospective of Morton's work at the New Museum in New York City, curators Allan Schwartzman and Kathleen Thomas pronounced it a "joyous celebration…almost saccharine in its sentimentality."[189] The stakes of these descriptions are perhaps best illustrated by critic William Zimmer, who dismissed *Signs of Love* as "too saccharine in the company of the tough stuff" when it

[188] Michael Auping, in *Matrix/Berkley 2* (Berkley: University Art Museum, 1978). Karen Rosenberg, "A Haunting Tour, One Room at a Time," *New York Times*, January 21, 2011, C31.
[189] Allan Schwartzman and Kathleen Thomas, "Ree Morton: A Critical Overview," in Schwartzman and Thomas, *Ree Morton: Retrospective*, 1971-1977, 65.

made the roster of *Immaterial Objects*, a 1989 travelling exhibition surveying the sculptural practices from the 1960s and 1970s. Too soft and too sentimental, *Signs of Love* does "not hold up" for the critic.[190]

Frequently cited as an "artist's artist," Ree Morton remains marginalized in the histories of installation art.[191] This exclusion is frequently attributed to Morton's biography: between earning an MFA in 1970 at the age of thirty-three and her tragic death in 1977 due to injuries sustained in a car crash, Morton's career lasted only seven years.[192] Despite this tragically short timeframe, Morton was immensely industrious and exhibited along such artists as Gordon Matta-Clark, Robert Morris, Lynda Benglis, and Eva Hesse, during her lifetime. More so than her biography, the reason why Morton remains marginalized is because her practice resonates with such varied movements as Minimalism, Postminimalism, as well as site-specific and Installation art, therefore making her work elusive to categorization. Much like her chosen material of plastic, Morton is everywhere and nowhere in the history of art.

Indeed, Celastic offers an entryway into Morton's practice because she began using the material at the same time as she started depicting language and decorative motifs, which she installed in increasingly complex ways within the gallery. A close look at Morton's engagement with Celastic reveals that her installations do not "hold up" to the "tough stuff" because they destabilize the dominant terms of 1960s and 1970s art

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[190] William Zimmer, "Whitney Museum in Stamford Offers Iconoclastic Objects," *New York Times*, March 29, 1992, Connecticut Weekly, 22.
[191] The term "artist's artist" was frequently used to describe Morton during the two-day symposium on Ree Morton at the Institute of Contemporary Art in Philadelphia on March 15th and 16th, 2018. Artists who cite Morton's influence include Nayland Blake and Alex Da Corte.
[192] Morton received her MFA from Tyler School of Art in Philadelphia in 1970.

criticism—namely, theatricality and negation—to affirm the gallery visitor as an intimate collaborator in meaning-making. Whereas the previous chapters of this dissertation honed in on artists staging the open-ended possibilities and animacy of plasticity, Morton's work engages with the limitations of plasticity to deconstruct the normative space of the gallery, as well as of language. In this chapter, I trace how Morton embraced Celastic's status as a pharmakon, meaning that the plastic could animate the maker's imagination and become rigid to draw an analogy between Celastic and language. In staging this analogy within the space of the gallery, Morton posited the emerging genre of installation art as a mode of contamination that both deconstructs existing gender dynamics and opens onto the possibility of an anarchic intimacy.

Although often used generically, "Celastic" is a trade name for a plastic-filled fabric that can be cast in layers, similar to papier-mâché. The name combines elements of the words "cellulose," the material's main ingredient, and "elastic," its advertised foremost physical property. In the manufacture of Celastic, cellulose is woven into a sheet and individual fibers are treated with cellulose nitrate. The raw, white fabric is somewhat stiff, akin to pasteboard, and can be torn into strips. Celastic's elasticity is activated through the addition of heat or a solvent. When soaked in acetone, the cellulose nitrate solubilizes and the cloth softens, becoming pliable and capable of sticking to itself.[193] The cloth is pliable for approximately twenty minutes; as it evaporates, the cellulose nitrate cures, causing the fabric to hold its shape.[194] Dry Celastic has an off-white color that is easily painted. Despite Celastic's affinity with the word "elastic," its

[193] "Solubilizes" is a technical term. It is also accurate to say that the cellulose nitrate "dissolves."
[194] Thurston James, The Prop Builder's Molding & Casting Handbook, p. 105

material behavior is in fact one of plasticity. Unlike an elastic rubber band, which returns to its original shape after being stretching, Celastic has the capability to take on—and maintain—a new shape. The material's plasticity is not a permanent state; it must be reanimated after the cloth has cured.

Patented in 1926 and one of the many petroleum-based plastics that flooded the American market after World War II, Celastic was first commercially produced in the late 1940s by the chemical conglomerate DuPont.[195] Distinctively, it was one of the earliest synthetics marketed as a "do-it-yourself" plastic. Prior to this, the average American consumer encountered synthetics only after they were shaped into consumer products, such as nylon stockings. Celastic, however, appeared in stores as a material that buyers could easily transform with the addition of a solvent. This positioned it as an open-ended tool for the maker's imagination. Celastic, therefore, is a material that synthesizes industry and craft.

As is often mentioned in discussions of Morton's work, Celastic is commonly used in the theatre for the manufacture of such items as masks and decorations, as well as for small construction projects [Figure 29]. Like raw Celastic, the plasticity of which must be activated with the aid of a solvent, theater props made from this material are static until actors animate them during the performance. Outside of its uses in the theater, Celastic also featured prominently in storefront displays. Bernice Abbott had already

[195] Nylon is often discussed in these terms as one of the many petroleum-based plastics that flooded the American market place after World War II. Originally produced by The Celastic Corporation, a subsidiary of Du Pont and the United Shoe Machinery Corporation, Celastic was patented in 1918 by Stanley P Lovell as a colloid treated fabric. The name "Celastic' was registered as a trademarked in 1923. The material's original use was to make boxes to strengthen the tip of shoes and boots.

captured Celastic's presence in New York City's urban landscape in her 1947 photograph titled *Celastic Plastic Shop*. The gelatin silver print documents a large sign, in which Celastic is hailed as "the fantastic plastic," with an elaborate decorative border of Celastic cherubs and drapery. In contrast to the bold, modern fonts on the sign, the cherubs add a note of sentimentality to the advertisement. The ornamental drapery also evokes a theater curtain, as though the cherubs are revealing the Celastic sign to the spectator. Though decades apart, it is impossible to miss the visual resonance between the ornamental drapery in this 1947 Celastic advertisement and the motif of Celastic banners and curtains that would eventually become so notable in Morton's work. During Morton's lifetime, Celastic displays were not limited to stores selling the synthetic material; shops often incorporated Celastic elements for the holidays and seasonal decorations. Each year, Zody's, a chain of discount retail stores that operated from the 1960s until 1986, would install a giant nineteen-foot tall Santa Clause made of Celastic in each of their locations to mark the official start of the holiday shopping season [Figure 30]. Though it is rare to encounter Celastic displays today, the material was an important visual component of Americana, evoking family traditions and holiday rituals.

Morton first used Celastic in *Bake Sale*, an artwork that foregrounds her interest in gender politics. Created in 1974, *Bake Sale* is a mixed media installation that resembles a small shop window [Figure 31]. *Bake Sale* was Morton's ironic contribution to a "Women's Faculty Show" at the Philadelphia College of Art, where she taught while commuting from New York City. Reflecting on the exhibition, Cynthia Carlson described the female members of the faculty as responding unenthusiastically, and perhaps even

with hostility, to the idea of participating in an exhibit tokenizing them as women artists, while simultaneously revealing their general exclusion from the male-dominated art world.[196] In *Bake Sale*, Morton not only poked fun at the premise of the exhibition but also deconstructed the gender stereotypes that systemically preclude women artists from receiving the same recognition as their male colleagues. Helen Molesworth points out that Morton used the language of "PTA (Parent Teacher Association) meetings, hallmark card notations of sentimentality, and motherhood and mapped them onto the logic of the institutional art exhibition."[197] Using such delicate, and feminine, materials as paper doilies, glitter, and candy gumdrops, or "jujubes," Morton created an installation that seems to play up motherhood by visually resembling a bake sale, yet she outsourced much of the actual baking and cake decorating to her students. Morton's decision to involve her students simultaneously circumvented her expected gender role as a caretaker, or provider of nourishment, and served as a pedagogical exercise for her students by having her male students contribute to a "Women's Faculty Show."

As her students baked, Morton sculpted pastel-painted bows from Celastic and attached them as further decoration to the designated "window" and counter space of *Bake Sale*. Recognizable as a material used for storefront displays, celastic imbued the installation with sentimentality by welcoming the viewer's associations with childhood memories and bygone holiday cheer. Celastic's connotation with the space of the storefront suggests that Morton's *Bake Sale* could be seen as her answer to Claes

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[196] Cynthia Carlson's reflection appears in *Ree Morton: Retrospective 1971-1977* (New York: The New Museum, 1980), 40-41.
[197] Helen Molesworth, "Sentiment and Sentimentality: Ree Morton and Installation Art" in *Ree Morton: Works 1971-1977* (Generali Foundation), 17.

Oldenburg's 1961 *The Store*, except, whereas Oldenburg circumvented the commercial art gallery system by selling his artwork directly and at low cost, Morton's used of the ubiquitous storefront material of Celastic to challenge the perceived gender and class neutrality of the art exhibition space. In an installation of doilies, glitter, and homemade baked goods, Celastic played an important role as a signifier of sentimentality—a mass produced and popular material, it nevertheless welcomed personal associations and feelings.

Bake Sale marks Morton's departure from her early work. Morton's 1968 *Early Piece* and 1969 *Shaped Painting*, both made while she was still an MFA student at Tyler School of Art, exhibit her playing with medium specificity and the conventions of painting by adding curves and depth to the picture plane [Figure 32 and 33]. These shaped canvases poignantly challenge Michael Fried's critical project because Morton reveals that theatricality and medium-specificity are not mutually exclusive. Though few examples of Morton's early works survive today, these two works show her engaging in the critical debates surrounding the fine art topics as modernism, Minimalism, and the role of the art viewer. In the early 1970s, Morton began installing structures such as the 1971-1973 *Untitled,* which comprises of painted branches, into the gallery. As pointed out by curator Sid Sachs in the exhibit *Invisible City: Philadelphia and the Vernacular Avant-Garde*, Morton's early installations were symptomatic of a broader aesthetic milieu, with artists Rafael Ferrer and Italo Scanga producing similar-looking wooden

structures featuring simple geometric forms while living and working in Philadelphia.[198] Though these early installations already reveal Morton's interest in using nontraditional materials, narrative, and theatrical framing, their overall muted color palette, symmetry, and condensed visual syntax appear a world apart from the vibrant and excessive *Signs of Love*, a work Morton would make only four years later.

Given that Morton's embrace of plastic, as well as decorative motifs and bright—perhaps even garish—colors begins with *Bake Sale*, her turn to Celastic has at least something to do with being asked to exhibit in the "Women's Faculty Show." In departing from fine art critical debates and a visual vocabulary shared with her male colleagues, Morton seems to acknowledge that her membership in the art world of the 1970s is limited to playing a game where the rules are rigged against her. Recognizing the extent to which *Bake Sale* marks a rupture in Morton's practice may finally illuminate why such sympathetic art historians as Molesworth describe her work as filled with sentiment and rage.[199] Morton's first engagement with Celastic, a material whose plasticity is time-sensitive and restricted, coincided with her participating in an exhibit that materialized her awareness of her limitation as a woman artist. Morton's summation

[198] Sid Sachs's *Invisible City: Philadelphia and the Vernacular Avant-Garde* was on view at the Philadelphia Academy of Fine Art from March 18th, 2019 until June 28th, 2019. Sachs presented a paper on the visual resonances of Morton's work with that of her fellow Philadelphia artists at the Ree Morton symposium on March 17, 2018 at the Institute of Contemporary Art in Philadelphia.

[199] Molesworth has noted the rage in Morton's work in a panel at the Institute of Contemporary Art, Philadelphia on October 26, 2018.

of her work as “not bad, for a girl” takes on a sardonic tone and begins to resonate as an ironic feminist anthem.[200]

Critic Manuela Ammer described Morton’s *Bake Sale* as having “an aesthetics of ambiguity.”[201] According to Ammer, the work stages feminine clichés that both embrace and critique the signs of femininity they represents,” which makes it difficult to categorize Morton’s practice as “feminist.[202] Art historian Abi Shapiro, who has done extensive research to situate Morton within the feminist aesthetic debates of the 1970s, argues that Morton’s ambivalent employment of feminine clichés is neither apolitical nor apathetic. For Shapiro, “ambiguity and ambivalence in Morton’s installation relays the impossibility of authentically representing women’s experience in a patriarchal visual culture.”[203] Building off of Shapiro’s argument, Celastic became a privileged material for Morton because its limited plasticity signified the false promises of women’s liberation within a patriarchal society: women gained access to freedom, or malleability, but only to a point. Morton’s notebooks support Shapiro’s reading: the artist wrote about using contradiction as a tactic. In one entry, Morton writes:

> If what you want is not to present graphically a resolution of a theory, but to lay out all the wild inputs of sensations, complication, contradictions and the old, already dog-eared word, ambiguity, that continually comes rolling in off the beach, then why does that meet so much resistance?[204]

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[200] Ree Morton, “Application for the John Simon Guggenheim Memorial Foundation Grant” (1976) quoted in *Ree Morton: Retrospective 1971-1977*, 1980.
[201] Manuela Ammer, “From Silly Stellas to Signs of Love: Ree Morton’s Take On Form, Feeling, and Fake,” *Ree Morton: Be Place*, *Place an Image, Imagine a Poem,* (Madrid: Museuo Reina Sofia, 2015),153.
[202] Ibid.
[203] Shapiro, 229.
[204] Ree Morton, [February, 1975] quoted in *The Mating Habit of Lines: The Sketchbooks of Ree Morton* (Burlington: University of Vermont: Fleming Museum, 2000), 52.

"Ambiguity" appears as an "old, already dog-eared word" in Morton's artistic toolkit, worn down through frequent use. It is striking that Morton expresses a desire for the viewer to complete the resolution of the theory, through their own experience of her graphic mapping of sensations, complications, and contradictions—an articulation of her methodology as one of participation with gallery visitors. In another notebook entry, Morton emphasizes this point by quoting Harold Rosenberg. The entry states: "in art it is always a mistake to push a concept to its logical conclusion. Art comes into being not through correct reasoning but through contradiction of reason in the ambiguities of a metaphor."[205] Rosenberg's formulation of art as emerging from the contradiction of reason is dialectical, and Morton's inclusion of this quotation aligns her with plasticity, which, as discussed in the introduction, though ambivalent in its dialectical structure, may inspire a politics. To consider ambiguity within the context of plasticity further reveals how Morton sought to reanimate her chosen material. Whereas Celastic hardened into rigid plastic, staging it within a constellation of ambiguous motifs or signs reactivated its malleability.

Morton's turn to Celastic materialized this tactic of ambivalence. Here, it is necessary to explicate Celastic's popular uses in addition to the material's association with the theatre. Though it is possible to make the claim that Celastic was gendered "feminine" because art criticism positioned theatricality as malleable, this association is contradicted when considering that Celastic was also widely used in boating sports. Between the 1950s and 1970s, magazines such the aptly titled *Motor Boating* ran

[205] Morton, Notebook (RM12, 1971-1974), 13. Morton is quoting Harold Rosenberg in *The New Yorker*, May 25th, 1968.

advertisements for Celastic as a substitute for canvas on decks, and celebrated it as an inexpensive wonder material for boating enthusiasts.[206] In the advertisement segments such as "Adventures in Celastic," the synthetic material is distinguished for its weatherproof durability. As opposed to the Celastic theatre prop whose function is left open-ended, performative, and contingent upon the actors, boating magazine writers and advertisers emphasized the material's rigidity after it dries, with reports of Celastic's impressive ability to uphold drilling, sanding, cutting, and painting. This emphasis on Celastic's durability codes the synthetic plastic as masculine, with advertisers evoking the ruggedness of a voyage on the open sea, even if, in reality, the reader only used his boat leisurely, while enjoying a summer weekend on a lakefront property. In addition to coding the plastic as "masculine," boating advertisements are intriguing sites of theorizing the material properties of Celastic. In a later iteration of "Adventures in Celastic," the material is described as capable of creating "exact replicas" because Celastic can "cling to anything" when soften[ed] to then "become a durable double" when lifted away from its original. Here, the process of using a mold is discussed in terms of replication: the Celastic replicates that which it attaches to, emphasizing its identity as a surrogate to an original. A traditional mold is unnecessary for working with Celastic, because it will "cling to anything," becoming an imprint of any surface to which it adheres. Celastic replicates an original while simultaneously improving upon it: Described as a "durable double," the Celastic replica is capable of outlasting its original with its weatherproof rigidity. This popular use of Celastic reveals that Morton used the

[206] H. A. Calahan, "Five Years in a Hurricane: An Adventure in Celastic" in *Motor Boating* (May 1954), 103.

material against the grain by imbuing the material with feminine flourishes and painting it with glitter.

Taxidermy marks the final common use of Celastic, and it renders the material especially ambivalent. By the end of the 1950s, taxidermy trade magazines recommended Celastic for reproduction work and sculpting, specifically citing the material as excellent for crafting artificial limbs and "fabricating ear liners and noses for nearly all small and large animals."[207] In taxidermy, Celastic's ability to form a "durable double" meets theater's potential to reanimate the static Celastic prop. Using Celastic, taxidermists formed synthetic ears that outlast their fleshy, finite predecessors, and sculpted them in such a way as to suggest that the specimen is actively listening, as though sound could stir into motion.[208] This use of Celastic, which will be explicated further at a later point in this chapter, disrupts interpretation of Morton's work as "too saccharine" or as displaying an unequivocal embrace of feminine clichés. Morton's 1974 *Maternal Instincts*, for instance, is often cited as Morton's uncritical celebration of motherhood because it contains the letters "L" "S" "S" to signify the names of her three children [Figure 34]. A reading of the work as a purely celebration may overlook the yellow Celastic banner's resemblance to a funerary wreath. My reading does not aim to suggest that *Maternal Instincts* is about taxidermy or death. Rather, I hope this shows that even Morton's most overt engagement with sentimentality is ambivalent, and therefore welcomes further critical engagement. Though it is outside the scope of this chapter, one possible reading is

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[207] "Celastic LT: Description," in *Atlas International* (February 12, 2018) http://www.atlasortho.com/Celastic-LT_p_1476.html.
[208] Interestingly, it is within taxidermy that Celastic lives on.

that Morton's use of Celastic suggests that she explores a mode of relationality that is not limited to biological familial relationships, but which extends to friends, collaborators, and perhaps even to gallery visitors, through networks of kinship.

Soon after *Bake Sale*, Morton wrote in her notebook: "new material opening up possibilities."[209] In May of 1974, Morton took a roll of Celastic with her when she started a month-long appointment as a visiting lecturer at the University of Montana in Missoula. While there, she continued to explore the sculptural possibilities of the material and began making linguistic sculptures, including *Bozeman, Montana*, in which she employed language as both a material and an abstract image. Morton discussed Celastic in an interview with Barbara Schwartz in 1975, stating: "Right after the Whitney show I took some Celastic to Montana to demonstrate the potential to the students. I made my name out of clay and pushed the Celastic around it. As soon as I saw the words embossed on a hard surface, well, that was it."[210]

This statement appears to affirm the importance of the material for Morton. Yet, as in the poesis of Morton's journals, in which words and drawn lines morph to multiply in meaning, it in fact leads to more questions about her interest in the material. Although Morton had previously worked with Celastic in *Bake Sale*, she brought a supply of it with her when she traveled from New York in Montana, and it was the shared experience of embossing her name in the material alongside her students that proved poignant. Significantly, Morton did not identify the potential that so fascinated her as belonging to

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[209] Ree Morton in *Ree Morton: Retrospective 1971-1977*, 42.
[210] Barbara Schwartz, "Methods and Materials: New and Old," in *Craft Horizons* 35 (December 1975), 46-49.

the Celastic. Instead, she used the material as a tool to demonstrate “a potential,” one that must be presented as a process, rather than as an end result.

Morton stressed the importance of observing the soft clay letters as they became embossed into a stable and unified surface. The “potential” she alluded to is the transformation of matter—the Celastic’s transmutation from a malleable material to enduring form. In witnessing the letters merge into a word—her own name, nonetheless—Morton brought matter and language intimately closer, disavowing the categorical distinction between tactile materials and immaterial concepts. By animating language through the malleability of Celastic, Morton sculpted language and matter simultaneously. For Morton, the word was not made flesh; it was made Celastic.

Often described as Morton’s “first linguistic sculpture,”[211] the wall piece *Bozeman, Montana* (1974) comprises twelve brightly painted Celastic “vignettes,” each presenting a word, that are framed between two large brackets [Figure 35]. Attached to the brackets are red, yellow, and white light bulbs, whose electric wire Morton left exposed. The brackets serve as parentheses that delineate the space between them as an interval, or interlude, and position the vignettes as actors on a stage. The parentheses mark the temporal and spatial realm of performance, with flashing lights animating the vignettes as theater props.

The twelve vignettes identify the work’s “actors.” Curt, Lowell, Manuel, Mike, Richard, Scott, and Sylvie were Morton’s students; their names provide insight into the gender makeup of her class. The remaining words—beer, fish, mts (mountains), pool, and

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[211] Sabine Folie, ed. *Ree Morton, Works 1971-1977* (Vienna: Generali Foundation, 2009).

sky—act as pictorial elements by evoking images of what they represent. They introduce impressions of Morton's experience of Montana—a summer she spent fishing when she was not teaching.

The vignettes display a range of experimentation with Celastic, most likely because they were produced collaboratively between Morton and her students. Each is differentiated through color, shape, and decorative flourishes in glitter. Certain vignettes, such as "Curt," were relatively simple to make: a strip of softened Celastic was placed over the clay letters, then the plastic was pressed around the letters to emboss them, and finally the excess Celastic was arranged into a pattern resembling fabric folds or parchment curls. Once the Celastic hardened, the clay was removed and the synthetic mold was painted; the name "Curt" stands out in yellow and glitter against a red background. Other vignettes were more complex to produce. "Mike," for example, is made up of multiple layers of Celastic. This repeated layering of Celastic complicates the distinction between exterior and interior, as well as of figure and ground.

In her accumulation of plastic strips and positive molds, Morton played with the cultural association of Celastic as offering a "durable double" to canvas on boats. The hanging Celastic was molded to resemble fabric folds and drapery. In the simple vignettes, the embossed words are durable doubles of lost clay molds; in instances where Morton layers strips of Celastic, the "durable doubles" triple, and sometimes even quadruple, through an accumulation of replication. Rather than using Celastic as a means to an end, like the owner of a boat who is interested in fixing his ship, Morton explored the material properties of Celastic. This formal play results in a social jab: the

accumulation of Celastic makes a parody of its function; the accumulation of rigidity does not result in a more autonomous or "masculine" material, but instead draws attention to its use for replicating, and complicates the distinction between mold and duplicate.

Considering Morton's use of Celastic contributes to existing analysis of the work. As discussed by Sabine Folie, Morton's Celastic vignettes create a "biographically tinged tone poem"—when gathered together, the individual words contribute to a constellation of Morton's experience in Montana. *Bozeman, Montana* is often discussed in terms of Morton's fascination with emblems. Around the time that she made this work, Morton filled pages of her notebooks with musings regarding emblems.[212] In 1974, she wrote: "Emblems do not necessarily require any analogy between the objects representing and the objects or qualities represented, but may arise from pure accident. They may bear any meaning that men may choose to attach to them, so their value still more than that of symbols depends on extrinsic facts and not intrinsic features."[213] Morton repeatedly referenced the emblem as an abstract image that represents a concept, an idea, or a person by means of convention. An image becomes emblematic through a process of abstraction, yet this abstraction is a social phenomenon: emblems become legible when two or more people agree upon their meaning.

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[212] Ree Morton, notebook, 1974. Also published in *Ree Morton: Retrospective 1971-1977*, 44.
[213] Ree Morton, notebook, 1975. The original quotation appears to be from *Picture-writing of the American Indians: extract from the tenth annual report of the Bureau of Ethnology* published in 1880 and 1894, p. 610.

As with emblems, Celastic has no intrinsic meaning or value. It is only once Celastic takes a recognizable, or conventional, form that it acquires identity as a storefront holiday ornament, a durable double in boating sports, a feature of taxidermy, or as component within an art installation, and these meanings can shift based on the material's context. Far from being an inconsequential material within her practice, celastic allowed Morton to explore her own position within society as an artist, a woman, an educator, and a mother—as well as the possibilities for playing with, or molding, these roles—by noting that people are always immersed within language.

In *Bozeman, Montana,* the vignettes appear as emblems: their shapes evoke seventeenth-century heraldry; the insignia declare the actors "Mike" and "sky" without imagery. Yet, more than creating the appearance of emblems, Morton used Celastic to explore the process by which language and image become emblematic, working through analogy. Morton created this work in collaboration with her students. Together they shaped individual letters in clay over which they laid a strip or strips of Celastic to unify the letters into a word. Morton's material process analogizes how the flux of language, or its plasticity, becomes standardized through social interaction. During the twenty minutes or so that the Celastic was soft, she engaged with the material's plasticity to animate the language, before it hardened into convention.

Though *Bake Sale* no longer exists, there is much continuity between Morton's first installation featuring Celastic and *Bozeman, Montana*, her first linguistic sculpture. Just as the space of the "Women's Faculty Show" was not neutral in terms of gender and hierarchy, the conventions of language are also charged with acquired meaning. In *Bake*

Sale, Celastic bows evoked both personal sentiment and mass-produced sentimentality; in *Bozeman, Montana*, Celastic names allowed for an expression of creativity within the conventions of language. As Molesworth so poignantly observed, "For Morton, we are imbricated in language as we are in space or feeling."[214]

Bozeman, Montana and *Bake Sale* each stage an "encounter," which curator Susan Stoops calls a "situation conceived as a site of social interaction."[215] According to Stoops, Morton orchestrates an "internal dialogue" between the sometimes-contradictory material elements within her mixed media works. To observe Morton's work, is therefore to encounter an internal dialogue that is already a site of difference and social interaction—and it is further up to the viewer to participate in this sociability and join the dialogue. Observing this internal dialogue reveals that Morton's tactic of ambivalence is neither apathetic nor apolitical. The manner in which Morton stages her work is theatrical; in *Bozeman, Montana*, Morton reanimates Celastic's plasticity, as well as the potential of her pedagogical exercise. In addition to evoking a theater stage, the illuminated brackets serve to delineate and suspend the time of collaboration between Morton and her students. Although presented as a group within the brackets, each vignette contributes to a motley crew of difference rather than uniformity. Even if thousands of individuals answer to the proper name "Mike," Morton's student was able to play with the plasticity of his name and to find the expressive potential within

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[214] Molesworth, 17.
[215] Susan Stoops, "Ree Morton" in *More Than Minimal: Feminism and Abstraction in the 1970s* (Waltham, Mass: Rose Art Museum, Brandeis University, 1996), 69.

convention. Whether it is in the space of the classroom or within the parameter of an installation, Morton's stages the reanimation of plasticity.

Morton found a different structural and conceptual use of Celastic in *Devil Chaser*, a mixed media work she made in the fall of 1975, while teaching at the University of California, San Diego [Figure 36]. Morton created *Devil Chaser* by coiling yellow, blue, red, black, green, and maroon Celastic around a thin wire armature. She then tied additional Celastic knots, shaping their excess ribbons to suggest motion, as if they are billowing in the wind or actively entangling around the wire. These knots are simple squares that serve no mechanical function in the work; they appear ornamental, evoking so-called "remembering knots" that are used as memory devices. Morton's shift from embossing with Celastic to scribbling with the synthetic material in "free hand" leads to a difference in orientation: Morton moves from using the wall as a hanging support to utilizing the floor. *Devil Chaser* rises from the ground in an anti-phallic and chaotic arrangement of spirals. Its bright colors draw the viewer's eye into a vortex of stilled motion. *Devil Chaser* also serves as a record of Morton's motion: to make the form, Morton drew spirals in the air with wire and Celastic. These sculpted spirals index her gestures.

Morton found inspiration for *Devil Chaser* in Neltje Blanchan's book *Wild Flowers Worth Knowing*, a 1917 manual notable for its inclusion of the poetic and talismanic properties of plants. In the book, "Devil Chaser" is listed as another name for St. John's Wort, a plant with numerous symbolic and healing purposes. Blanchan's entry for St. John's Wort lists the plant's three important uses: To Cure Demoniacs, or demonic

possession; To Ward off Destruction by Lightning; and To Reveal the Presence of Witches." Morton transcribed this entry into her notebook and added her own tongue-in-cheek selling point. "You never know when you might need one," she wrote.[216] Morton's preliminary sketches for *Devil Chaser* reveal that she envisioned these textual instructions as key components of the installation. In a sketchbook, Morton drew "Devil Chaser" as comprising a central node with several unfurling ribbons, or tentacles, and wrote each of the plant's uses within the areas mapped out by the appendages.

Morton went through several iterations of *Devil Chaser*. Debuted at the University of California at San Diego in 1975, the first iteration of *Devil Chaser* consists of a small spindly, plant-like form of wire and Celastic that sits on a rectangle of mock lizard skin, with a low, winding fence marking the perimeter on three sides, with the title of the work forming the fourth.[217] Morton made three text plaques—each listing one of Devil Chaser's uses—and placed the plaques onto the mock lizard skin. Installed in this manner, the plaques appear as object labels and suggest a Natural History Museum display. Morton's engagement with the text is more compelling within the fence detail of the installation. There is continuity between the fence and the words "Devil" and "Chaser," suggesting that Celastic line can form either a structural component or an image of a word. Morton's use of line is a mode of sculpting that doubles as writing in space.

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[216] Ree Morton, *Swarthmore Alexis Sketchbook*, RM-03, C. 1974/1975, Ree Morton Notebooks, Franklin Furnace Archive.

[217] *Ree Morton: Retrospective 1971-1977*, 52.

Morton exhibited *Devil Chaser* again in 1976 at the Rhode Island School of Design. Though it is considered the same work, and is now the only version of *Devil Chaser* that exists, this installation reveals Morton's significant advance in using Celastic to animate the text of *Wild Flowers Worth Knowing*. The words "Devil Chaser" are still legible in the work, but this time the text lies directly on the floor and the letters are arranged in a circular pattern around the Celastic entanglement. Whereas the earlier iteration resembled a contained display in a natural history museum, Morton's decision to install the structure directly onto the gallery floor evokes a specimen that has broken free of its cage. To read the words is to encircle the sculpture, and engage in a visual chase around the work's perimeter. Morton created this iteration of *Devil Chaser* by embarking on a material chase herself, following the wire armature with Celastic skin. The chaotic entanglement plays with Devil Chaser's paradoxical role as a plant that reveals the presence of witches yet also wards off—or deflects—demonic possession. Tracing the configuration of *Devil Chaser* is to participate in a game of hide-and-seek: the overall composition makes use of negative space and permits the gallery viewer to look through it, offering a sense of transparency, yet its repeated spirals and Celastic knots are diversions from an attempt to unravel Morton's scribbling line. The longer that one looks at *Devil Chaser*, the more it begins to resemble a snare, suggesting that the decorative bows and bright colors may all serve as a decoy to Morton's trap. Has *Devil Chaser* invaded the gallery space? Does it aim to entangle the viewer? Morton's chosen vocabulary of memory knots and sentimental Victorian prose is neither straightforward nor innocent.

Devil Chaser is the last of many works in which Morton drew her inspiration from plants. Between the summer of 1974 and early 1976, Morton engaged closely with Blanchan's book, to make such pieces as *Terminal Clusters* and *Fading Flowers* [Figure 37 and 38]. Selecting phrases from the text, Morton used Blanchan's language as found material (the phrase "Terminal Clusters" appears in the entry on St. John's Wort, for instance, but it is difficult to ignore that the phrase is also associated with illness) and either embossed or sculpted the phrases in Celastic. These linguistic sculptures induce conflicting feelings: Morton described their shape as "horseshoes," which are symbols of good luck, and their candy colors and flashing lights inspire association with an amusement park; yet the horseshoe creates an outline that could double as a tombstone, especially considering that the Celastic sashes bear phrases about fleeting memories and mortality. Morton noted: "Relation of colors—bright, decorated—contradiction to funerary look—with sadness of words."[218] It is telling that Morton chooses to render the phrase "fading flowers" in Celastic. To fade is to gradually become faint and to disappear. Flowers exhibiting signs of decay are often described as fading, and Morton's choice to arrest the flora's disappearance in the rigid and durable material of Celastic is compelling. Rather than halting her chosen subject at the height of its vibrancy, Morton embalms a phrase evoking the fleetingness of a life that has already undergone partial decay. Morton's own approach to Celastic's limited plasticity seems to be marked by melancholy.

[218] Ree Morton, 1975 *Black Sketchbook*, RM-18, 1975, Ree Morton Notebooks, Franklin Furnace Archive.

Morton engaged in the paradoxical nature of her plant-inspired Celastic pieces directly in a 1974 multi-media work called *The Plant that Heals May Also Poison*. Here, a large piece of curving pink Celastic bears the titular phrase, with ends shaped to resemble the gathered fabric folds of a banner. Five Celastic ribbons hang vertically from the main banner, each embossed with the name of a plant whose effect may be medicinal—or poisonous (such as Nightshade and Aconite). A plant with the potential to heal and to poison may be described as a "pharmakon," an ancient Greek word with multiple meanings, including drug, poison, cure and remedy. Morton explored these multiple meanings of the pharmakon, not just through her chosen subject of plants that heal and poison, but also in her use of Celastic, a plastic with associations of theatricality and taxidermy, and in her fascination with language.

Jacques Derrida discusses the pharmakon's relation to writing in "Plato's Pharmacy." In the text, Derrida explicates Plato's *Phaedrus* and hones in on the story of the Egyptian god of writing—Thoth—offering King Thamus a "remedy" for human memory. This so-called remedy, or pharmakon, is writing. King Thamus refuses the god's gift on the grounds that it will lead to forgetfulness. For Thamus, writing is not a remedy for memory itself, but a way of reminding; he ponders that writing may prove such an effective tool for reminding that it may lead to a state of forgetting. In considering writing's potential to induce forgetfulness, Thamus evokes another definition for the term "pharmakon:" writing may not be the remedy of memory, but its poison.

In his reading of *Phaedrus*, Derrida considers the numerous meanings of the term "pharmakon." In addition to "remedy" and "poison," the term pharmakon may mean

drug, recipe, charm, medicine, substance, spell, artificial color, or even paint. Derrida observes that the pharmakon resists binaries: its dual identity as a remedy and poison eludes binaries of good/bad, positive/negative, etc. To consider the multiple definitions of pharmakon is to produce a flickering and disorienting play of conceptual oppositions. The binaries continue to pile up, eventually reaching the ultimate conceptual binary: that of the animate and the inanimate, or between life and death. In *Phaedrus*, Socrates dismisses writing as a mere image and describes the written word as inanimate. Socrates tries to counteract the pharmakon of "writing" with his most effective medicine—the living word of knowledge that is "graven in the soul." Derrida points out that Socrates counters the pharmakon of writing with another pharmakon—static writing is reanimated through the word of knowledge, which is living, yet engraved, within soul. Both poison and remedy, the pharmakon of writing not only eludes binary thinking, but it contains its own "opposite."

According to Derrida, to translate "pharmakon" as "remedy" while ignoring its opposite of "poison" is not simply incorrect: it is partial and violent. Derrida writes: "Such an interpretive translation is as violent as it is impotent: it destroys the pharmakon but at the same time forbids itself access to it, leaving it untouched in its reserve."[219] To partially translate pharmakon as "remedy" while overlooking its toxic opposite not only leaves its poison intact, but also hides it from the unobserving reader. A partial translation

[219] Jacques Derrida. "Plato's Pharmacy," *Dissemination* (trans. Barbara Johnson. London: The Athlone Press, 1981), 61-172.

operates through exclusion and erasure; it is an order formed by turning a blind eye to potential suffering.

Morton's *The Plant that Heals May Also Poison* offers a translation of the *pharmakon* as both remedy and poison. Presenting a list of plants under the banner of their possible effects, the work is as much about the material of Celastic as about such plants as Nightshade and Aconite. The pharmakon offers a parallel for the operation of plastic: the synthetic may materialize utopian visions, but it may also contaminate its environment. Even if Morton was not aware of Celastic's toxicity, her ambivalent engagement with the material to sculpt such phrases as "fading flowers," as well as bows in the tokenizing "Women's Faculty Show," reveal that she was sensitive to the limitations of its plasticity.

Deeply fascinated by Blanchan's *Wild Flowers Worth Knowing,* the text she mined repeatedly for source material, Morton would have come across the author's foreword. Blanchan, the late 19th Century scientific historian and nature writer, began her identification manual with the following extended analogy:

> "Flowers have distinct objects in life...The means they employ to accomplish these ends are so various and so consummately clever that, in learning to understand them, we are brought to realize how similar they are to the fundamental aims of even the human race...of adapting oneself to one`s environment, of insuring healthy families,..of founding new colonies in distant lands...of laying up treasure in the bank of future use…of punishing vice and rewarding virtue."

The phrase "adapting oneself to one's environment" is evocative of the language of plasticity, and Blanchan quickly shifts from an interest in adapting, or receiving a form,

to colonizing—a project that I would map onto plasticity's threat of "become plastic," or hardening into rigidity and sameness. Blanchan's analogy between resilient plants and humanity—specifically a vision of humanity rooted in colonialism—remains a thread throughout her book. Her charming descriptions of plants also contain notes of which species are most likely to take over their neighbors. Blanchan's writing is another pharmakon: her poetic flourishes and charming descriptions are interwoven with a moralizing tone, one deeply tied to racial violence and the erasure of native peoples. Morton's analogy between the poisoning/healing plant, or the pharmakon, and Celastic takes on another layer as an analogy between the synthetic material and language. Celastic and language can be malleable, but they can also harden, becoming rigid with convention.

Returning to *Devil Chaser*, acknowledging the installation as Morton's final engagement with Blanchan's text further animates the work. Morton's structural and conceptual use of Celastic becomes the colorful—and artificial—sweetener to the austerity of its wire armature. From its first iteration in 1975 to more recent installations, the swirling coils of *Devil Chaser* have grown in diameter and spread across gallery floors, like resilient plants and multifarious humans. *Devil Chaser* increasingly appears to overrun its surroundings. Though the genre of installation art was only beginning to take shape at this time, the manner in which *Devil Chaser* "takes up the gallery" evokes the spread of invasive species, which, in its ambiguity, may enact colonization or the reclaiming of space. The more that *Devil Chaser* appears to break out of its frame, the

more Morton posits installation art as a gesture of invading, or perhaps contaminating, the gallery.

Here it is important to note that work also remains a joyful entanglement, with ornamental memory knots and bright flourishes, which means that Morton does something in addition to the staging of ambivalence. To put it a different way, Morton's formulation of installations as an art of invasion or contamination through the ruse of kitsch or the decorative is political because it challenges notion that the gallery space as neutral or unmarked. Throughout the 1970s, critics described Morton's work as decorative, biographical, and feminine. These are accurate descriptions, yet they operate through a comparison with the austerity and dominance of Minimalism and Conceptual Art within American Art, and, through the comparison, suggest that Morton's work is not as conceptually rigorous. Tracing Morton's use of materials and text revels that she engaged in the theoretical complexity of the pharmakon of writing through—not despite of—a decorative aesthetic. In addition to conceptual rigor, Morton's engagement with the decorative is also *generous*. To focus on the plant as poison is to make another a partial translation; after all, the poisonous plant may also heal.

One key distinction between deconstruction and plasticity is how the two modes of reading approach difference and differentiation. As philosopher Naomi Waltham-Smith notes:

> For Derrida, *différance* means both a deferential or detour and not being identical, being other. But Derrida neglects a commonplace sense of *différance* as variation or change. This is what Malabou is getting at with

> the notion of plasticity: *différance* as capacity for material to transform itself.[220]

According to Malabou, "plastic reading," which I would rephrase as the reading of plasticity due to the dialectical distinctions I have drawn out in the introduction, "aspires to the metamorphosis of deconstructive reading."[221] Something does transform when Morton reads Blanchan's text and translates its colonial rhetoric into the form of a sprawling art installation. At a time that installations were only starting to take shape as an aesthetic genre, Morton's *Devil Chaser* stages an inner dialogue regarding the ambivalence of installations as an art form that "takes up space." The ambiguous gesture of "taking up space" can enact colonization or the reclaiming of space, and Morton's earlier installation *Bake Sale* has already shown that the artist understood the gallery as a contested space that was far from neutral. Just as the plant that poisons may also heal, an installation may colonize or adapt itself to offer a shelter to those excluded from this exclusionary space. Morton's extended analogy between material plasticity and the animacy of language appears as a kaleidoscopic swirl of color and affective ornament; it is a visual dance of joy that enlivens the austerity of the white cube.

Morton's interest in reclaiming contested space into a site of relationship is perhaps most apparent in *Something in the Wind*, a work she conceptualized and executed while she was reading Blanchan's text and transforming *Devil Chaser*. In 1974, Morton wrote a grant proposal for a new project she described as "an outgrowth of the work I

[220] Naomi Waltham-Smith, "Confronting continental philosophy's fear of biologism," in *Music and Science*, Vol. 1 (2018), 8
[221] Malabou, *Dusk of Writing*, 52.

have been interested in the last few years…I would like to do a picture-word history of my life—to make a flag for each person and place which has been important in my life up until this time."[222] Morton went on to specify that she wanted to exhibit the work at Rockefeller Center in New York City because "it is a highly trafficked public space—it is crucial to this piece that the personal nature of the flags (autobiography) be presented in public space."[223] Rockefeller Center is a curious choice for a public art installation because it occupies privately owned land and is only semi-accessible to the public. Most famous for its annual holiday tree lighting and ice skating rink, Rockefeller Center is a space that solicits public, yet nevertheless highly commercialized, sentimentality. Morton's proposal to install a series of hand-made flags in honor of the places and people that she loved in Rockefeller Center transforms the site from a landmark of commercialized sentimentality into a temporary shelter to the intimate sentiments of friendship and love. Morton described her installation of flags as "a commemoration, a celebration, a statement of affirmation."[224] Rather than installing an expensive art piece in high profile site, Morton was driven to occupy, or to contaminate, Rockefeller Center with flags of no intrinsic value—their worth was in the relationships and meanings they held for Morton.

Though Morton received the grant funding, she was unable to secure Rockefeller Center plaza as a location. In June of 1975, Morton unveiled *Something in the Wind* as an installation of flags strung up along the ropes of a 19th Century schooner docked at South

[222] Photographs of the proposal appear in *Ree Morton: Works 1971 – 1977*, 135. *Something in the Wind* was awarded and funded by a Creative Artists Public Service Program (CAPS) grant.
[223] Ibid.
[224] Ibid.

Street Seaport [Figure 39]. The work comprises of 100 nylon flags, each bearing the name of a person or place dear to Morton, as well as a unique hand-sewn, appliquéd emblem. Among the gathering of names and idiosyncratic emblems, Morton included a bird for her romantic partner Gordon Matta-Clark, a dragon for friend and scholar Barbara Zucker, and an Egyptian head for artist friend Laurie Anderson. Though the schooner was not Morton's first choice, it suited her poetic sensibility and, at one point, Morton toyed with renaming the work *The Relation-Ship*.[225] The schooner adds an interesting dimension to the work because flags were frequently used to communicate the identity of fleets prior to technological innovation. It is not unusual, therefore, to observe flags on ships but Morton short-circuits this medium of communication for her intimate network. Even when working outside of the gallery space, Morton explores contamination as a tactic to ban conventional meaning in order to welcome private forms of connection. Approaching *Something in the Wind* as an ephemeral vessel for relationships, Morton eventually gifted each flag to the person it named.[226] Reflecting on the work, Morton stated: "The work goes full circle. I got to think about each person as I made the flags, then flew them together; then I gave the person that time and that object."[227] *Something in the Wind* reveals that Morton was interested in art's potential to affirm such affects as love and friendship even as she explored the medium specificity of celastic and theorized how installations take up space. Love is the effusive "something" in the wind.

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[225] See *Ree Morton: Works 1971-1977*, 137.
[226] Morton kept the flags for a year for exhibition purposes.
[227] Ree Morton, quoted by Schwartz in "Methods and Materials: New and Old," 48.

Morton's interest in working across the gallery and public space resonates with various artists who explored such tactics as installations and site-specificity to dismantle fine art hierarchies and traditional art education. Between 1972 and 1975, Morton was a member of Anarchitecture, an artists' group started by Gordon Matta-Clark in New York City.[228] As the name suggests, the group mixed "architecture" and "anarchy" by collaborating on exhibitions that critiqued modernist approaches to architecture, often working under the guise of anonymity. Such practices demanded new modes of critical discourse, and it is useful to consider how Morton continued to elude these emerging theoretical frameworks.

Rosalind Krauss would go on to analyze the transformation of modernist medium-specificity into postmodernist medium multiplicity. In 1979, Krauss published "Sculpture in the Expanded Field" in *October*, a peer-reviewed academic journal she, along with Annette Michelson, founded in 1976 as a rejection of *Artforum*. Reacting against pluralism, Krauss mapped out the structural parameters of sculpture, architecture, and landscape art through the precise diagram of the Klein group. "Sculpture in the Expanded Field" would go on to assume canonical status and impact the subsequent developments in all three fields, shaping the possibilities and rules for art discourse.

Throughout this iconic essay, Krauss uses the material and metaphor of plastic to critique postmodern medium-multiplicity and pluralism. Krauss opens "Sculpture in the Expanded Field" by stating that such categories as sculpture and painting "have been

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[228] The group included artists Laurie Anderson, Tina Girouard, Carol Gooden, Suzanne Harris, Jene Highstein, Bernard Kirschenbaum, Richard Landry, and Richard Nonas. The group gathered from 1972 until 1975.

kneaded and stretched and twisted in an extraordinary demonstration of elasticity, a display of the way that a cultural term can be extended to include just about anything."[229] The main predicament that Krauss identifies, therefore, is that aesthetic criteria have become too malleable and inclusive to such a degree that the categories of "painting" and "sculpture" lose distinction and meaning.

Krauss goes on to explicate the increased plasticity of these terms by turning to examples of artworks featuring plastic materials. Aiming to critique historicism, which Krauss argues mitigates difference by evoking a model of evolution, she claims that the historicist who seeks to establish a connection between Donald Judd's use of plastic with that of Gabo's erases their differences. She writes:

> Never mind that the content of the one had nothing to do with, was in fact the exact opposite of, the content of the other. Never mind that Gabo's celluloid was the sign of lucidity and intellection, while Judd's plastic-tinged- with-dayglo spoke the hip patois of California. It did not matter that constructivist forms were intended as visual proof of the immutable logic and coherence of universal geometries, while their seeming counterparts in minimalism were demonstrably contingent-denoting a universe held together not by Mind but by guywires, or glue, or the accidents of gravity. The rage to historicize simply swept these differences aside.[230]

Judd and Gabo have certainly employed different plastic materials for diverse ends, but it is striking that Krauss's distinction of the two artists echoes Fried's claim in "Shape as form" that the modernist artist transcends shape whereas the Minimalist deals with literal shape. In the passage, Krauss describes Gabo's plastics in terms of the artist's logic, meaning his mental facilities, and the interest in universal geometries, which transcend

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[229] Rosalind Krauss, "Sculpture in the Expanded Field" in *October*, No. 8 (Spring 1979), 30.
[230] Ibid., 32.

the physical—and particular—limitations of Celluloid. Judd, meanwhile, is relegated to a universe "held together not by Mind but by guywires:" his employment of plastic materials remains physical and literal.

Right after discussing plastic materials and the plasticity of the term "sculpture," Krauss expresses concern that expanding aesthetic categories without exclusion may lead to a collapse of critical discourse. She states, "We had thought to use a universal category to authenticate a group of particulars, but the category has now been forced to cover such a heterogeneity that is, itself, in danger of collapsing."[231] Within this formulation, aesthetic categories are threatened by plastic materials, which welcome similarity between different artists, as well as by the plasticity of language and changing social conditions. Krauss's disavowal of plastic coincides with her dismissal of the expanding heterogeneity of the terms of art, as though art criticism could collapse at any moment. Just as theater and theatricality stood in for the social in Fried's "Art and Objecthood," plastic and plasticity now have the potential to fold in vast differences into the category of art. Krauss's anxiety over heterogeneity echoes Fried's earlier claim that theatricality threatens art through its dismantling of hierarchies and distinctions.

Krauss does go on to acknowledge that there is a need to expand the definition of sculpture. Looking to artists working at the intersection of sculpture, architecture, and landscape, such as Richard Serra, Walter De Maria, Robert Irwin, Sol LeWitt, and Bruce Nauman, Krauss observes that art has experienced a historical rupture from modernism, as well as a structural transformation of the cultural field that characterizes it. She locates

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[231] Ibid., 32.

her terms by looking to critical theory, stating, "The one already in use in other areas of criticism is postmodernism**.** There seems no reason not to use it."[232] Expanding the methodology of art criticism, Krauss looks to mathematics and the human sciences to use the Klein group as a mapping operation. Rather than focusing on values, moral judgments, or explicit hierarches, Krauss maps the distinct categories of sculpture, architecture, and landscape onto a horizontal grid. The postmodern artwork arrives at its categorical distinction through a series of exclusions, which now posits a category of "sculpture" or "architecture" in terms of "ontological absence" rather than the medium specificity of modernism.[233]

Given that Krauss's focus on Gabo's concept overlooked his tactile and theatrical uses of plastic, it is worth considering what else is lost in the exclusionary mapping of the Klein group. Krauss's privileging of the mathematically precise grid of the Klein group over material and conceptual plastics, which underscore the artwork as both a part of the physical world and "sticky" with social associations, suggests that, as discussed in the first chapter, it is yet again the social and the intersectional that is excluded from art criticism. Focusing on Krauss's discussion of "plastic" as elastic, cultural, and heterogeneous reveals that both the material and concept telegraphed social diversity for the critic. To omit it from art discourse reinforces the possibilities and the rules of earlier criticism, though now under the guise of postmodernism.

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[232] Ibid., 41.
[233] Ibid., 36.

Morton's 1976 installation *Signs of Love* does not fit Krauss's critical terms because it affirms the connection between such categories as "sculpture," "architecture," and "landscape." First, Morton includes sculptures of yellow ladders—sculptures she had installed in the landscape of Lewiston, New York as part of her contribution to Artpark earlier that year. The plastic material of Celastic is perhaps the most obvious way that Morton brings different aesthetic categories into relation. Though the installation features several paintings, Morton at one point sculpts Celastic to look like a painting—a detail that underscores the importance of paint, as well as the act of painting, in her transformation of the sculpting material Celastic. This sculpted painting may also be self-referential to Morton's early attempts to mold the picture plane while still a graduate student at Tyler School of Art.

Signs of Love warrants an analysis in its own terms, which will highlight how it disrupts the prevailing models of art criticism. The installation spans two adjacent walls and extends onto the floor [Refer to Figure 28]. Standing near the corner of the adjacent walls offers a sense of immersion in the work, yet *Signs of Love* does not span the entirety of the gallery space, which means that the installation offers an enclosure the closer one moves to the corner while remaining open. Unmistakably theatrical, *Signs of Love* features several painted Celastic curtains that are hung from where the walls meet the ceiling to evoke a scrim. Several sculpted yellow ladders, each near life-size, are propped against the wall to suggest that one could climb them. The pairing of curtains and ladders invites consideration of where the viewer is when encountering *Signs of Love*. Could one theoretically climb the ladder and look over the wall or through the

curtain? To look over, or through, would suggest that the installation activates a virtual space, one beyond the physical confines of the gallery.

Celastic features prominently in *Signs of Love*. By 1976, Morton developed her skill of working with Celastic to heighten its potential to suggest movement. Celastic knotted bows, ribbons, and streamers are sculpted as though they are flying or dancing, or, perhaps just animated by the wind. Morton once wrote in her notebooks "theatricality…a poetically heightened artificiality."[234] Maypoles, bows, and red roses—all crafted through the synthetic material of Celastic—evoke romantic clichés, but Morton's decision to stage them in this heightened theatrical setting through the ambivalent material of Celastic offers a potential metamorphosis of these tired signifiers. The maypole, for instance, is associated with May Day festivities, which leads scholars to interpret the motif as signifying love and celebration, but May Day is also the chosen date of International Workers Day. Suddenly, Morton's cliché becomes malleable—does she mean to suggest that work is a labor of love? And if the artwork brings labor and love into analogy, then perhaps an installation as effusive as *Signs of Love* participates in broader dialogues of gender politics and labor rights, suggesting that sentiment plays an important role in these debates. Perhaps it stages an internal dialogue about art making and emotion labor being similarly undervalued.

Morton includes the following nine words and phrases in the installation: "Poses," "Symbols," "Setting," "Gestures," "Atmospheres," "Pleasures," "Objects," "Moments"

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[234] Morton [1975, *Black Sketchbook*]. As quoted by Susan Richmond, "The Sentimentality of Ree Morton's Signs of Love," *American Art* 30, no. 3 (Fall, 2016), 101.

and “Signs of Love.”[235] The first eight words fall into the category of the final phrase “signs of love,” and it is up to the gallery visitor to supply their own memories to animate these signs. Morton includes several conventional signs of romance, such a red roses, but these are only the starting points—it is up to the participant to put the scene into motion. Morton’s “labor of love” invites visitors to inhabit a space of intimacy. Similarly to the vignettes in *Bozeman, Montana*, which Morton described as “thrown” words stuck onto the wall, the wall in *Signs of Love* becomes a screen for the viewer’s personal experience.

Yet again, Morton hints at a virtual space, within which the visitor is free to daydream about intimacy, and to love in safety. Lisa Phillips observes that *Signs of Love* is a display and a solicitation of “vulnerability and strength” because Morton displays signs of love, an emotion often seen as private, in the shared space of the gallery.”[236] This observation raises a curious question: is it safe to express love in the gallery space? People experience safety differently based on their gender, race, and sexual orientation, and expressions of intimacy often amplify these disparities. As already discussed in regards to *Bake Sale*, Morton was aware that the space of the gallery was not neutral, and it is interesting to note that she renders the most overt signifier of heterosexuality—the portrait pair of the prince and the princess—as anachronistic, due to their period costumes. Crudely drawn, they pale in comparison to the sensual texture and color throughout the installation.

[235] As Abi Shapiro notes, Morton changed the way the phrases were displayed along the walls. in the first version, the words and phrases are painted with a brush in “handwriting” on boards. In the 1977 version, the letters have been cut out from black paper and stuck to the wall. *Ree Morton: Be A Place*, pages 130-131 and 152 include photographic documentation of each of these version.
[236] Lisa Phillips, “A New Acquisition: Signs of Love” Leaflet (New York: The Whitney Museum of Art, 1990).

Molesworth wrote that "celastic opened up Morton's work to the lump in the back of your throat—bittersweet and melancholic."[237] Frequently used for holiday displays, Celastic inspired association with family traditions and celebrations with friends. The material's short time of malleability also materialized how fleeting these joys were, and Morton explored ways of extending the time of this animacy through the addition of lights, as well as staging the gallery to evoke a theatre set. In *Signs of Love*, Morton included two baskets overflowing with numerous streamers of painted Celastic. The Celastic hangs heavy, like wet laundry before one drapes it up to dry. These enigmatic baskets conjure Morton's process of making—of her adding solvent to soften Celastic and the material becoming receptive. Sculpted to summon this time of transformation, these staged Celastic details suggest that the material's plasticity spans the duration of the installation.

While the baskets evoke Celastic's limited malleability, it is in the decorative flourishes that Morton achieves the plasticity she recognizes as fading. Since 1976, *Signs of Love* has been exhibited with different amounts of bows, suggesting that an exact number is not necessary to the installation.[238] The bows are noisy excesses that reveal Celastic's tie to the real. As Morton sculpted a strip of Celastic into the shape of a bow, it became a Celastic bow. Lacking any inherent meaning, the Celastic strip touches the real, and it transforms and gains meaning through this touch. Celastic bows announce the unmediated potential of plasticity, and their excess suggest that Morton imagined

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[237] Helen Molesworth, "Sentiment and Sentimentality: Ree Morton and Installation Art" in *Ree Morton: Works 1971 – 1977*, (Vienna: Generali Foundation, 2009), 17.

[238] The Whitney Museum of Art, Object file for *Signs of Love* (Accessed October 23, 2015). s

installation art as one of joyful contamination. Returning to Morton's involvement with Anarchitecture, what if these unmediated superfluous bows signal her anarchism? "Not bad, for a girl" becomes an anarchist-feminist anthem wrapped in a Celastic bow, but whereas Gordon Matta-Clark's "building cuts" perform anarchy through absence, lack, and destruction, Morton's Cselastic flourishes remain generative in their lawlessness and excess. Just as the plant that may poison may also heal, installation art does not have to enact colonization—it can affirm love.

CONCLUSION

Take Great Care

In June of 2017, I walked into a study room of the Fogg Museum to meet the art object that I was paired with for the duration of SITSA, the Summer Institute for Technical Studies in Art. As my fellow participants approached their prints, photographs, drawings, bronzes, and paintings, each clearly displayed as an object of study within the sun-flooded room of the Renzo Piano-designed building, I faced a large white box with Velcro attachments through process of elimination. Like a patient in the intensive care unit, the artwork was protected by Styrofoam layers, and handling directions, written in black-marker across numerous surfaces, stating, "Take great care."

The artwork inside was the 1967 replica of Naum Gabo's 1926 *Construction in Space with Balance on Two Points*. Because the original was deemed too fragile to leave the off-site storage facility, the replica was sent as its replacement, but, whereas my cohort members spent extended sessions with their artworks, the replica could leave its protective enclosure for only a few minutes at a time. Observing this 1967 replica as the most fragile object in the room, which included a 13th Century illuminated manuscript and an early photograph, revealed the true vulnerability of 20th Century artworks featuring plastic. Art and design objects featuring plastic pose unprecedented conservation issues, yet ironically it is this very material that is most often employed to protect artworks. Today, art is on display inside Plexiglas cases and plasticizers are added to ageing paint to prevent it from cracking.

In 2018, plastic materials appeared in the news for two very different reasons. On the one hand, National Geographic Magazine honed in on the major problem of ocean plastic, raising awareness of discarded consumer items, such as plastic straws, that not only accumulate, but also refuse to break down, resulting in the disruption of entire ecosystems.[239] Striking a different chord of panic, plastics made news due to the role they play in the ageing of art and design objects. In March, the provocative headline "No, your furniture shouldn't drip or burst" in the New York Times drew readers in to consider midcentury plastic furniture that is ageing in unruly and unforeseeable ways.[240] Later that year, the New York Times ran another story concerning this phenomenon, this time focusing on museums' emphasis on the preservation of plastic materials.[241] The message regarding plastics is thus tellingly Janus-faced, for the lifespan of plastic materials is both too long for natural cycles of decay and not long enough for museums.

These two contexts also posit plastic materials differently in terms of their value, and reveal a continuity of the "two cultures of plastic" that Jeffrey L. Meikle identified in *American Plastic: A Cultural History*. In general, the presence of plastic in the ocean is undesirable because it threatens the sustainability of the planet. Meanwhile, when the same plastic materials appear within an artwork, plastics' physical and metaphoric qualities are appreciated because they allow artists to explore malleability, as well as create objects of historical and cultural significance. As environmental scientists seek to

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[239] "Planet of Plastic" in *National Geographic* (June 2018).
[240] Eve M. Kahn, "No, your furniture shouldn't drip or burst" in *The New York Times* (March 2, 2018), https://www.nytimes.com/2018/03/02/style/design-plastics-midcentury.html.
[241] XiaoZhi Lim, "These Cultural Treasures Are Made of Plastic. Now They're Falling Apart," in The New York Times (August 28, 2018), https://www.nytimes.com/2018/08/28/science/plastics-preservation-getty.html.

minimize the nuisance of ocean plastics, museum conservators scramble to slow down the decay of artworks featuring plastic. To encounter an aging artwork made of plastic within a museum is therefore to encounter a paradox: the museum is a cultural institution broadly charged with collecting objects and ensuring their accessibility to the public. Plastic materials, meanwhile, are ubiquitous. One of the most immediate, if not overly optimistic, takeaways from this dissertation is that art conservators are making tremendous scientific advancements in polymer chemistry and that that at least some answers to the vast problem of plastic pollution may lie within the collections of art museums. Caring for artworks opens onto caretaking for our shared planet.

Synthetics also inspire conceptual anxieties. Plastic is a challenging material to think about in relation to art because its many iterations can assume varying degrees of shape, texture, hardness, density, or color, and because the term "plastic" is still used to denote the quality of being shaped or molded—a quality that was once regarded as specific to aesthetics, but is now a commercial and manufacturing process. In this dissertation, the narrow historical focus on the 1960s and the 1970s reveals that the concept of "plastic" was especially contested and malleable at this time. Tracing the "two cultures of plastic," the rise of intersectional social movements, as well as artists' interest in reanimating the conceptual and material pliability of plastic, has led me to propose that it is more accurate to discuss this historical period, which is "sticky with associations," through the dialectics of becoming plastic and the movement of plasticity.

According to theorist Mel Y. Chen, embodiment is a shared material experience between humans, non-human beings, and objects, and animacy is the mode of description

that animates these shared connections. Inspired by Chen, I have activated the latent animacy of artworks featuring plastic through close looking and description, while also formulating plasticity as a mode of animacy that is not limited to rhetoric. The dialectic of plasticity *matters*—as argued by Malabou, it is a distinctive to late capitalist societies; it is its defining paradigm. Plasticity also marks the synthesis of material and concept, and is thus irreducible to Cartesian dualism or binary thinking.

For Chen, the chains of connection between human, animal, and environmental agents are reinforced or denied by rhetoric of legitimacy, hierarchy, and normalization.[242] Throughout this dissertation, I traced how plasticity destabilizes exploitative and alienating power dynamics to instead open onto the generative, and sticky, potential of relating across the binary of subject-object distinctions. Plasticity resists becoming plastic by moving through lateral networks comprising of humans, objects, and the shared environment. In the case of plastic materials, the introduction of the noun "plastic" to signify a material normalized the existence of synthetics, as well as the role of the chemical industries and plastics manufacturers in shaping everyday life. In the dialectic of "plastic" and "plasticity," plastic normalizes a hierarchy in which industry trumps people, whereas plasticity destabilizes hierarchies.

According to Chen, animacy, or animate description, also has a queer potential because it reconfigures oppressive distributions of power by recognizing connections that were previously overlooked or denied. This study has reanimated the queer potential of

[242] Mel Y. Chen, *Animacies: Biopolitics, Racial Mattering, and Queer Affect* (Duke University Press, 2012).

plasticity to complicate established categories of matter, rendering human bodies inextricable from their environment, and art inextricable from the social. The dialectics of plasticity offer new directions for queer theory. Culture and media theorist Heather Davis argues that the plastic object "carries a queer particularity, one that flirts with death and accepts its fate as at once desired and derided."[243] For Davis, queer communities can learn how to organize themselves and find new modes of strategies, affects, and politics by looking to plastic's tactic of accumulation and proliferation. Though Davis's ultimate point is about finding creative—and life affirming—ways of co-existing with plastic and its toxicity, her argument hinges on a formulation of "queerness" that is purged of difference. Citing philosopher Claire Colebrook's theorization of the "necessary extinction" of sexual difference, Davis suggests that plastic materializes the annihilation of differentiation.

Plastic is, therefore, queer without queerness. Synthetic polymers disrupt the human endocrine system to imitate the hormone estrogen, which blurs the binary of male and female, but this disruption does not necessarily result in greater gender variance. Plastic's queer ability to infiltrate human bodies and the environment is a far cry from a politics of queerness that affirms the radical co-existence of difference. It, instead, results in the accumulation of sameness—of the world becoming plasticized. The dialectic of becoming plastic and the movement of plasticity may help articulate the difference between queerness and a queer theory that is not open to change, and which does not tolerate difference. As argued in the Richard Hamilton chapter, "transness," and thinking

[243] Heather Davis, "Imperceptibility and Accumulation: Political Strategies of Plastic," in *Camera Obscura*, Vol. 31; No. 2 (2016), 187.

of the ever-evolving subject as transitioning through gender, may blast open the ambivalence of queer plastic onto a politics of plasticity and queerness. To describe *Pin-up* and *$he* as bodies in transition is to animate the open-endedness of the human to transform along with the changing material and technological landscape. Gender becomes something to explore, find pleasure in, transition through, and inhabit rather than an enforced container—a limiting and airtight plastic Tupperware box. To discern the movement of plasticity from becoming plastic is to shift from identity politics to a politics in which human beings have a right to change, experience pleasure, and bloom into a constellation of identities.

Of course, people do not have equal access to plasticity even while living in the same society, and the nations under late capitalism remain stratified. Fred Moten, for instance, has criticized Malabou's thought for her focus on neuroplasticity and the disembodied brain without taking into account the limitation that skin color, and blackness in particular, poses for a human's ability to grow and transform.[244] In this dissertation, the case study of Ree Morton's work in Celastic reveals that an artist may be drawn to a synthetic material with limited malleability precisely to analogize their own marginalization, as well as their unequal access to the art world and to society. In the case of Morton, reading her work through the dialectic of plasticity and becoming plastic reveals how such affects as love and rage inform the work, and position her installation art as a practice of joyful anarchism and contamination.

[244] Fred Moten, "The Touring Machine (Flesh Thought Inside Out)" in *Plastic Materialities: Politics, Legality, and Metamorphosis in the Work of Catherine Malabou* (Duke University Press, 2015).

This dialectic of plasticity and becoming plastic has tremendous impact on art making and the discipline of art history. Art can transmute current and future forces of legitimacy, hierarchy, and normalization. Whereas the replication of Naum Gabo's artwork materialized the theory of modernism becoming plastic, Morton's affective Celastic installations continue to elude postmodernist methodologies for evaluating art. Engaging with an artwork through a reading of plasticity disrupts the art historical canon, and opens onto a mode of aesthetic discourse that takes into account such sticky associations as biography, narrative, politics, and networks of intimacy. To acknowledge that the "plastic arts" are haunted by synthetics may lead one to argue for the art world's tie to the oil industry, but it can also signal art's imbrication within the social—a relationship that positions artists to resist corporate strategies of scalability and the accumulation of sameness.

Just as plastic materials have infiltrated life and art over the course of the 20th century, social plasticity, or the political struggle to dismantle oppressive hierarchies and limiting binaries, has contaminated the privileged realm of art and the discipline of art history. This contamination is as generative as it is fragile both because artworks featuring synthetics are particularly vulnerable to decay and because it is up to the art critic or the art historian to reanimate social plasticity. Just as synthetics are ambiguous because they materialize both a utopian promise and an environmental threat, art's contamination by social plasticity can move in either direction of the dialectic. Though ambivalent, contamination initiates an open-ended horizon of possibility—a future that is so desperately needed at a time when people are inundated with messages of global

environmental collapse. It is an invitation to take great care—to cultivate the movement of plasticity and to resist becoming plastic.

IMAGES

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Tate: Gabo Archive and other papers, Tate Gallery Archive, London.

Yale: Gabo Archive and other papers, Beinecke Rare Books and Manuscript Library, Yale University, New haven, CT.

Ree Morton's Notebooks

Notebooks are listed below in chronological order. All notebooks were seen at http://franklinfurnace.org/ree_morton_sketchbooks/index.php! Last accessed July 2019. Names and dates of each item are listed as they appear in on the Franklin Furnace website.

1968

Morton, Ree. *Grumbacher All Technique Sketch Pad*, Ree Morton, RMV21, c.1968. Ree Morton Notebooks, Franklin Furnace Archive.

1969

Morton Green Graph Sketchbook, RMV25, ca.1969. Ree Morton Notebooks, Franklin Furnace Archive.

'69 Small Black Sketchbook, RMV27, 1969. Ree Morton Notebooks, Franklin Furnace Archive.

Semester Composition Notebook, RMV28, 1969. Ree Morton Notebooks, Franklin Furnace Archive.

Red Cover Spiral Notebook, RMV22, 1969–1970, Ree Morton Notebooks, Franklin Furnace Archive.

Blue Cover Artist Sketchbook, RMV10, 1969, 1970. Ree Morton Notebooks, Franklin Furnace Archive.

1970

Dark Green Large Sketchbook, RMV23, 1970. Ree Morton Notebooks, Franklin Furnace

Archive.

Small Blue Sketchbook, RMV24, ca. 1970. Ree Morton Notebooks, Franklin Furnace Archive.

1970 Small Blue Sketchbook, RMV13, 1970. Ree Morton Notebooks, Franklin Furnace Archive.

Large Black Soft cover Ring bound Sketchbook, RMV14, 1970, 1972. Ree Morton, Notebooks, Franklin Furnace Archive.

1971

Green Graph Sketchbook, RMV11, February1971, Ree Morton Notebooks, Franklin Furnace Archive.

Large Black Hard Bound Sketchbook, RMV12, 1971, Ree Morton Notebooks, Franklin Furnace Archive.

1972

Vernon Royal Maroon White Notebook, RM, ca. 1972–1973, Ree Morton Notebooks Franklin Furnace Archive.

August 72 Jan 73 Large Brown Sketchbook, RMV08, August 1972–January 73, Ree Morton Notebooks, Franklin Furnace Archive.

1973

Strathmore Shelburne Sketchbook, RMV09, 1973, Ree Morton Notebooks, Franklin Furnace Archive.

73874 Small Black Sketchbook, RMV02, 1973 V1974, Ree Morton Notebooks, Franklin Furnace Archive.

June 73 Feb 74 Artist Sketchbook, RMV07, June 1973–February1974. Ree Morton Notebooks, Franklin Furnace Archive.

Square Deal Notebook, RMV30, ca.1973-1974. Ree Morton Notebooks, Franklin Furnace Archive.

very small brown notebook, RMV37, 1973-1974. Ree Morton Notebooks, Franklin Furnace Archive.

1974

Large Black Hard Bound Notebook, RMV01, May 1974–June 1975, Ree Morton

Notebooks, Frankin Furnace Archive.

Strathmore Alexis Sketchbook, RMV03, c.1974/1975, Ree Morton Notebooks, Franklin Furnace Archive.

1974 Daily Calendar, RMV31, 1974. Ree Morton Notebooks, Franklin Furnace Archive.

1975

1975 Black Notebook, RMV18, 1975, Ree Morton Notebooks, Franklin Furnace Archive.

Auto Trips Notebook, RMV04, ca. 1975. Ree Morton Notebooks, Franklin Furnace Archive.

1975 Largest Sketchbook, RMV20, 1975, Ree Morton Notebooks, Franklin Furnace Archive.

Red "Take Me Along" Sketch Book, RMV26, ca.1975, Ree Morton Notebooks, Franklin Furnace Archive.

JAN 1975 Record Notebook, RMV29, 1975, Ree Morton Notebooks, Franklin Furnace Archive.

1975 Calendar Appointment Notebook, RMV38, 1975, Ree Morton, Notebooks, Franklin Furnace Archive.

1975 Record Notebook (black+maroon), RMV17, 1975–1976, Ree Morton Notebooks, Franklin Furnace Archive.

1976

Morton 1975/76 Sketchbook, RMV06, 1976. Ree Morton Notebooks, Franklin Furnace Archive.

Artist Sketchbook, RMV15, 1976-1977, Ree Morton Notebooks, Franklin Furnace Archive.

1977

Manipulations of the Organic Notebook, RMV16, 1977, Ree Morton Notebooks, Franklin Furnace Archive.

1977 Black Sketchbook, RMV19, February 1977, Ree Morton Notebooks, Franklin, Furnace Archive.

Dates Unknown

Campus Turquoise Cover Notebook, RMV32, unknown, Ree Morton Notebooks, Franklin Furnace Archive.

Very Small Green Notebook (number243 and doodles on cover) RMV33, no date 1973, Ree Morton Notebooks, Franklin Furnace Archive.

Very Small Green Notebook (Handi notes), RMV34, no date, Ree Morton Notebooks, Franklin Furnace Archive.

Very Small Green Notebook (torn cover), RMV35, no date, Ree Morton Notebooks, Franklin Furnace Archive.

Very Small Green Notebook (Lucio Pozzi hand written on cover), RMV36, no date, Ree Morton Notebooks, Franklin Furnace Archives.