THE Z AXIS
AND ITS COMPOSITE MATRIX OF PERCEPTION

by

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ABSTRACT

Beliefs and ideas mingle with our perceptions of physical objects and spaces as the same cognitive
material. Within a conceptual mental space, these perceptions constitute a composite matrix of
perception. When we navigate physical spaces, we are navigating ideas, and when we maneuver
ideas we maneuver spaces. Ideologies form when the organization of this composite matrix crys-
tallizes, refusing to adjust to new ideas or visual clues. This interplay between ideas and objects in
space can lead to the formation of ideology. This thesis explores the ideological nature of navi-
gable spaces and identifies two ways of escaping their ideological conditions: first, through the
implementation of technical and conceptual devices, and second, through internal processes such
as daydreaming and hypnosis. These two techniques often mingle. Various examples from art,
film, and online communities are identified to demonstrate these techniques.

The thesis will present video based experiments that test our perceptions in space by playing with
the constructs of spatial mediation. These artistic experiments collectively form a vocabulary of
techniques for probing the conceptual and physical dimensions of spaces. Throughout, this thesis
aims to unpack the fundamental questions: can space exist without ideology, and if so, who can
we be within this vacuum, unable to affect our surroundings?

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Acknowledgments

for Johanna and Karl
<3

THE Z AXIS

AND ITS COMPOSITE MATRIX OF PERCEPTION

Contents

Introduction

The title of this thesis, *The Z Axis*, suggests a foreshortened dimension out in front of us. This is the dimension in which we understand objects and environments. We claim to know these visions in front of us as they are, yet we forget how flat and distorted they reveal themselves to our eyes. We are geometrically distanced from the conditions of lived experience.

Andrei Tarkovsky's 1979 sci-fi film, *Stalker*, depicts a landscape tortured by some unnamed force with apparent consciousness. Sealed off by government forces, one can only reach this place with the help of the "stalker," a hired guide. One cannot simply move as one does through the normal environment. The *zone* must be traversed in accordance to its demands and sensitivities. He tosses threaded nuts with streamers ahead of himself to test the path. How these missiles react to changes in the environment is not apparent.

Still from *Stalker,* 1979

The landscape constantly changes, although not visibly. In a moment, a once safe path becomes perilous. The mysterious power is only heard in the wind and proclaimed by the stalker's earnest and forceful warnings. If the demands of the zone are not observed, death is almost certain. The land changes according to its own will. One cannot retrace their steps nor rely on past experiences. The stalker is attentive to this consciousness and leads his ignorant hardheaded clients through the unstable environment. On this particular journey he guides a scientist and a writer to the middle of the zone. Here, there is a room which, when entered, grants one their deepest desire. The stalker makes his meager living as a guide but never steps into the room himself. His clients doubt the sentience of the zone. It is all the stalker can do to keep them on the path. In a moment of sublime agony of love and terror, he recites his sermon.

> "Let everything that's been planned come true. Let them believe. And let them have a laugh at their passions. Because what they call passion actually is not some emotional energy, but just the friction between their souls and the outside world. And most important, let them believe in themselves. Let them be helpless like children, because weakness is a great thing, and strength is nothing. When a man is just born, he is weak and flexible. When he dies, he is hard and insensitive. When a tree is growing, it is tender and pliant. But when it is dry and hard, it dies. Hardness and strength are death's companions. Pliancy and weakness are expressions of the freshness of being. Because what has hardened will never win."[1]

The stalker is physically tortured by his intimacy with the landscape, both physically and socially. Yet the stalker remains childlike. He is the holy fool. He is free from personal regimes of reason. His very survival requires this attitude. He is a stoic that relies on the experience of his own irrational contingent mortality. He is free to love, suffer, and taste in the zone's space of constant change. He is free from the regime of ideology and the hubris of man.

Who can we be when we are displaced from our spaces of comfort and security? Like the stalker, we are formed by the environments in which we move. Our surroundings however, remain static. The conditions

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1   Andrei Arsenyevich Tarkovsky, et al. *Stalker*. [videorecording]. n.p.: New York : Kino Internaitonal Corp., 2006, c1979., 2006.

and rhythms of a space perform a dressage upon us, train us and provide logical clarity. Space, alongside apparatuses of vision and navigation, furnishes an ideological facet. This thesis asks whether these ideological qualities of movement through space remain when that motion is relocated. The stalker, in his naivety, remains lucid in a space of uncertain arrangement. I can only hope for this resilience.

These writings and documented works make an attempt to systematize the experiences of the individual in space in what I call a *composite matrix of perception*. I admit that this attempt and force of theorization will eschew the texture of lived reality. In the artworks, I do not describe a comprehensive model of space in which we operate. The mediated abstractions of movement through environments with objects, videos, and installations can only provide meditations or pose questions about our lived environments in reduced dimensions. Ultimately, the method of this work is the setting up of hypotheses about the nature of space and movement to then break apart. These questions will remain questions and anxieties.

1. Prequel in the Ceramic Studio

The ideas and works documented and formalized in this thesis began in the ceramic studio. They have extended well beyond my initial notions and sculptural tests in clay. The works presented here are based primarily in video. Despite what may seem to be a large departure, the constraints that I uncovered within the practice of ceramics pointed to universal conditions of the individual earnestly trying to act within their environment. This prequel takes the histories and practices of ceramics as a case study from which anxieties and questions regarding navigation and perspectives of the subject within space will be teased.

There is a certain attitude that surrounds and mythologizes clay as a primal material. It is described as plastic, seemingly formless, and receptive to direct alteration by the unaided human body. This tends to promote a rhetoric of exceptional authenticity around the material. Clay is called dirt or earth. It is described with the qualities of earth as one of the five elements of Chinese philosophy '土', and thus mystified. It is often likened to the dust from which God made man.

> "Then the Lord God formed man from the dust of the ground, and breathed into his nostrils the breath of life…"[2]

Clay is often describes with this deistic sense of plasticity as fundamental and essential. Despite this rhetoric, clay is as much a mined industrial material as concrete or steel. Its

2   Gen. 2:7 (New Revised Standard Version)

physical qualities make it a very difficult material to manipulate. Demands of moisture, elasticity, microscopic structure, stress memory, shrinkage, and vitrifying temperatures keep ceramists on their toes. I sought to meet these physical demands, to master the material physically, with the hope of reaching the mythologized material qualities of direct plasticity. However, as I drew closer to mastery, another barrier presented itself in front my desire for authentic control over the material.

No material can be qualitatively more or less plastic than any other. We cannot properly define plasticity outside the constructs of their own discourses. Potters happen to shape clay into vessels which are fired until hard and watertight. Their actions are unavoidably defined in relation to this teleology.

Presently, I began to notice the conditions of the specific workshop actively affecting my work. The arrangement of tools, the architecture of the studio space, and the language of discourse are all traces of the ceramic tradition. Clay has been long relied on for its physical properties in the production of utilitarian objects, namely its ability to vitrify (harden, become glass like, and watertight) under high heat. The contemporary discipline continually negotiates its place in opposition to and in perpetuation of its traditional instrumentalizations. The aims of production have shaped the spaces of production. Likewise, their environments have directed the production. The activity of the craft occurs with significance not at the level of material manipulation, but within the setting of conditions and architectures of production itself.

The form of ceramic's traditions and practices have become a self perpetuating apparatus. In the Foucauldian sense, this apparatus is "linked to certain limits of knowledge that arise

from it and, to an equal degree, condition it."[3] On its interior, the practice and discourse has cultivated particular perspectives and narratives. If there is ever a limitation in a particular discipline, it is not located in the plasticity of its material, but in the epistemological limits of its discourse. Discourse extends beyond immaterial language to the physical constructions of space. These unspoken expressions of the discourse are not articulated openly and are thus incognito. This is the real power of the apparatus. The influence of physical arrangement invisibly directs activity and remains unnoticed.

The construction of workshops and the pathways of the movement of the materials are subject to external demands of material, taste, social structures, etc. While pottery is our momentary subject of study, the development of the structure of its discipline could be easily extrapolated to other materials and discourses of production. It is my aim, however, in the laying out of some histories and examples of its development, to acknowledge the contextual space of my work in the pottery studio which precluded subsequent experiments regarding movement in space.

Historical Moments

Regional variations of ceramic wares reflect the historical availability of materials and the environmentally conditioned needs and desires of a population. The medieval ceramic traditions of Japan serve as a good study for the effects of the environment on ceramic wares.

The mountainous landscape of the Japanese archipelago is geologically diverse and difficult to traverse. As a result, many small pockets of production with unique wares

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3   Michael Foucault, *Power/Knowledge: Selected Interviews,* trans. Colin Gordon et al. (New York: Pantheon Books, 1980) 196.

Shigaraki water jar, early example of work done explicitly for the tea ceremony

emerged.[4] Over many years, the multitude of wares produced across Japan became tightly defined and organized into a cannon of styles. The towns of Tokoname, Echizen, Shigaraki, Tamba, Bizen, and Seto have been mythologized as the "Six Ancient Kilns". Curator Louise Cort, confronts this narrative with additional research that debunks this cannon, recognizing many other historically and contemporaneously significant and unique centers of production in Japan. Despite a multitude of styles and materials, cultural demands remained more or less consistent across the island. In particular, connoisseurship of ceramic wares surrounding the tea ceremony valued regionalism while maintaining specific categories (tea bowls, tea caddies, water jars), specific techniques for use, and specific techniques for evaluating and appreciating heterogeneous objects. While the Japanese tea ceremony maintains strict techniques and connoisseurship across several schools of practice, there remained flexibility where the aesthetics of the tea wares are concerned. This

4   Louise Cort, *Shigaraki Potters' Valley* (Bangkok: Orchid Press, 2001), 21-2.

Shigaraki tea caddy

is due in part to the diversity of styles across the archipelago.

While the theory of six ancient kilns may not hold water in the face of evidence, the mythology of this group reinforces the identities of these individual sites of production. In a word, the wares from Bizen could be described as "purple", those from Shigaraki as "sandy", or those from Seto as "patterned". Historically all of these sites produced a multitude of works for various reasons. However the larger system of connoisseurship distilled the unique environmentally determined characteristics of the wares into singular recognizable images or styles. The development of these styles emerged from a feedback loop between the environments of their production, and the rhetoric regarding these features.

This historical narrative continues to inform the construction and organization of pottery studios in Japan. We can describe an explicit formal relationship between studio/ factory arrangements and architectures and the systems of value that developed within the larger culture surrounding these wares. In the case of Shigaraki, ceramic production

has largely shifted from functional wares to that of a particular caricatured statue of the Japanese *tanuki*, a raccoon like animal featured heavily in Japanese mythology.[5] The strict attentiveness of the tea ware connoisseur does not surround this production, nor does the production of these statues have much in common with traditional Shigaraki wares. The tools and studio arrangements changed to meet the need of this product. For example, ceramic glaze is not applied to traditional wares before they enter the kiln. Instead, heavy deposits of melting wood ash coat the works throughout many-day firings. The location of pieces in the kiln affect the color, texture, and pattern of this ash coating. The position and arrangement of works during the firing is carefully attended to as these effects play heavily in the rhetoric of connoisseurship. In the case of the tanuki statues, glazes are sprayed on with modern tools and works are almost exclusively fired in electric or gas kilns which deposit no ash. This transition was gradual (the first statues coming out of Shigaraki utilized traditional methods) and these modern techniques are not limited to these statues. However a split between these two modes of working emerged and was clearly delineated when, in 1975, Shigaraki pottery was selected as a traditional handcraft, with the intention of preservation, by law supported by the Ministry of International Trade and Industry. In doing so, the government specified certain defining characteristics: material sourcing, forming, decorating, and firing techniques.[6] These exclude the processes used to produce the tanuki statue. It does not however diminish their demand, so production continues. Contemporary studios have been influenced by the traditions of the craft as they attend to the demands and availability of materials and a larger system of connoisseurship. Yet, the shifting aims and demands of production toward a kitsch market has absorbed forms of production developed elsewhere with tools developed with different ideological aims of efficiency, consistency, and speed.

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5   Ibid., 266.

6   Ibid., 309.

Shigaraki tanuki incense burner statue, 1930s

By the seventeenth and eighteenth century, porcelain vessels exported from China had come to dominate European markets.[7]. The production methods of these highly coveted white and translucent wares remained a mystery. This created a huge incentive for anyone who could replicate its qualities domestically. The various attempts to do so throughout Europe and the Middle East, much like the regional variations of Japanese pottery, exhibited the resources of their environments. While regional variations were prized in Japan, the focus of production remained on the pure whiteness and translucence of Chinese porcelain that set it apart from other ceramic wares. These attempts to replicate porcelain resulted in several distinct

7   Anne Gerritsen and Stephen McDowall, "Material Culture and the Other: European Encounters with Chinese Porcelain, ca. 1650-1800," *Journal of World History* 23, no. 1 (2012): 88.

techniques and products: delftware, bone-china, and soft-paste.

Without adequate knowledge of the production methods nor access to Chinese materials, early attempts to replicate porcelain employed lower firing and chalkier clays. The results were unsatisfying. Delftware was developed in the Netherlands to imitate the color of Chinese porcelain. However it merely utilized a white glaze and colored stains over a grey or brown clay body and lacked the translucence and the strength of Chinese porcelain.

Unlike delftware, bone-china was white throughout and translucent like the original. Calcified bones were mixed with kaolin (a component of Chinese porcelain) to produce what is called soft-paste porcelain. It was fired at a lower temperature and still did not achieve the resilience nor pure-whiteness of the original. In around 1745, soft-paste porcelain was first industrially produced by the Chelsea Porcelain Manufactoy, matching the whiteness of Chinese porcelain but once again falling short in terms of hardness and translucence.

Even though porcelain (hard-paste) was sufficiently replicated by potters in Meissen, Germany in 1710, many of these variant wares are still commercially produced.[8] The

English delftware in the Fazackerley style, 1755-60

Soft paste porcelain, Chantilly, 1725-35

8   Ibid.,105.

Hard paste porcelain, Meissen
Germany, 1730

work of recreating porcelain lay in the restructuring of the spaces of production. New materials and processes had to be considered in this search. As such, flows of materials changed, the territory of the industry had to expand, and work was now done over larger distances. The structures of production came from a deeper value system tied up in an extension of space made possible by global trade, imperialist attitudes, and orientalist fascination.

The Discipline Expands

Frameworks for production, supplied by its histories in the form of workshops, factories, and supply chains, serve as a basis for discussions of ceramics today. The values of past ceramists have been petrified in the rhetoric and objects of the discipline which continue to play out long after their epoch passed. This is the weight of tradition made physical which must be now reconciled. Traditional forms of production and their respective products are often valued for their retention of some ancient aura purged from recent industrial processes. This approach describes the contemporary practice of what is called "tradi-

tional craft". It is a nostalgic approach that does not welcome technological progress. It is prone to take what were once groundbreaking techniques as timeless.

In another possibility, the site of production itself becomes the subject of work. This option can be played out as institutional critique or as technological advance. The two sometimes merge. This type of activity, where production space is directly considered, creates the ever-changing status quo of the discipline. This approach has been championed by artists Grayson Perry and Ai Wiewei. Each utilizes unique manipulations of the conditions of production in their work. We will also look at Asger Jorn, an artist, potter, and active member of the Situationist International. We will see how he nearly synthesized theories of spatial emancipation with the production of ceramic objects.

Self described transvestite potter, Grayson Perry uses the many aspects of the ceramic and art worlds, their common products, techniques, social venues, and rhetorics, self consciously. He explores their bounds like a jungle gym, swinging from one rung/aspect to another without violating their order. He produces large conventionally shaped jars reminiscent of Greek amphoras, Chinese vases, and Korean moon-jars, the surfaces of which he elaborately decorates with many colors and images. Often vulgar or low-brow, these images and messages hitch a ride on the vessels. They often comment on the rigmarole of the art-world itself. He is consistently skeptical about the nature of his success. He calls ceramics his "gimmick… I'm the tranny potter, and that not a bad, y'know. People remember it."[9]

His pots attempt to explain his exhibitions, comment on popular culture, or depict vari-

9   Perry, Grayson. "TateShots: Grayson Perry – Studio Visit," YouTube video, 5:33, posted by "Tate," October 14, 2011, https://www.youtube.com/watch?v=_Yboc75WufE

Grayson Perry as his alter-ego Claire

ous vernacular topics. He osculates in these productions between a self-consciousness about the production, and an instrumentalization of the form of production to address other topics. Grayson and his female alter ego Claire, traverse the image anchored social dynamic of the art-world. The discipline's matrix is for him a playground. The deterministic constructs of pottery and the larger art-world constitute this playground. His is a lightheartedness and irreverence toward traditional spaces and norms.

Ai Weiwei is the most detached of these artists in his use of ceramics. As a non-practitioner, he employs professionals to create replications and variations of ancient and antique Chinese pots. In doing so, the complete system of production becomes his material: from the sourcing of minerals, to the workers, to the systems of commerce and exchange, to illicit practices of counterfeiting.

Son of renowned poet Ai Qing, Ai Weiwei grew up in far western China where his family was internally exiled during the Cultural Revolution. He left for New York in 1981 where he began producing art. His early works

heavily adopted the Dada concept of the assisted readymade. He used shoes, coat hangers, raincoats, and condoms; the banal objects of New York.[10] Returning to China in 1993, he began creating works that, while still using found objects in a direct manner, tested or prodded the cultural situations from which they were plucked. Much of his early notoriety as an artist came from his works dealing with the ceramic traditions and present conditions of production in China. These works largely, although diverse in approach and scale, dealt with our relationships to objects within the constant advance of time and culture.

His most notorious work from this period, *Dropping a Han Dynasty Urn*, depicts Ai doing as the title suggests. Other iconoclastic works see him painting Coca-Cola logos on Neolithic jars, dipping others in industrial paint, or grinding them to a fine powder.

Naturally, these works elicit horror. Yet, ending interpretation there would be a miscalculation. Soon after his return to China, Ai discovered a thriving ceramic industry that had managed to preserve and perpetuate the Chinese ceramic tradition despite rapid industrialization in the country overall. Part of this industry was geared toward the counterfeiting of antique pottery. Not only were the techniques preserved, but new techniques had been developed to create undetectable counterfeit antiques. Powder from shards of ancient pots could be mixed into new clay making counterfeits chemically undetectable.[11] He plays with the uncertainty of originality that this situation creates. Does he actually destroy ancient pots, or, if we cannot tell the difference, does it even matter?

His series of tromp l'oeil works use the material of clay to recreate various objects: oil

10   Charles Merewether and Weiwei Ai, *Ai Weiwei: Under Construction* (Sydney: University of New South Wales Press, 2008), 34.

11   Gregg Moore and Richard Torchia. "Doing Ceramics," in *Ai Weiwei: Dropping the Urn: Ceramic Works, 5000 BCE – 2010 CE*, ed. Joseph N. Newland (Glenside: Arcadia University Art Gallery, 2010), 14

Ai Weiwei, *Dust to Dust,* ground Neolithic pottery, 2009

Ai Weiwei, *Coca-Cola Vase,* Neolithic vase and paint, 1997

spills, watermelons, waves, etc. The potter's skill that enables the productions of tromp l'oeil was honed, not only in honest production but, even more so, in the creation of counterfeit objects. The technical skill and ability to deceive is flaunted in front of the viewer without direct violation of trust (these are obviously not counterfeits although they point to the possibility of such).

While his collapsed site-of-production-as-subject is Chinese immediately and historically, his market and terms of dialogue are clearly in the Western tradition. Ai Weiwei relies on an ideologically Chinese treatment of antiques and forms of production that clash with Western sensibilities. In doing so, he navigates and questions an expansive landscape of production and consumption.

The space of the discipline becomes increasingly tangible in his deep

familiarization with its lineage. Dialogue and social channels within the discipline constitute the space as do the objects in the studio: the tools, material, architecture, and furnishings. Work becomes, if any attention is given to the attitudes assumed with the creation of objects in remembered ways for certain ends, a question of physical navigation.

Danish painter, theorist, sculptor, and ceramist, Asger Jorn played a central role in the Situationist International (SI), a social theory and art group led by Marxist theorist and filmmaker Guy Debord. The SI's activities focused around several theories and practices including those of psycheogography and the dérive (drift). These focused on the critique of hegemonic urbanism. The SI was a marriage of two artist groups: the Letterist International (LI) led by Debord, and the International Movement for an Imaginist Bauhaus (IMIB) led by Jorn.[12] The LI focused its efforts on language, urbanism, and psychogeographical phenomena,[13] while the IMIB was as Jorn put it, "the answer to the question [of] where and how to find a justified place for artists in the machine age."[14] With this theoretical and practical framework Asger Jorn vigorously produced abstract and primitivist works in many media. His ceramic works are very similar to his paintings in style and relationship to their respective media. Namely, fiercely abstracted forms, bodies, and faces, are carried by pots as they are by canvases. He worked on top of preexisting structures. His ceramic works are carried by everyday objects: bowls and plates. The markings on these ceramic wares do not challenge their utilitarian origins and their standardized techniques of production. Like Grayson Perry, Jorn used the craft for unusual ends. However, while Perry plays a coy game within the bounds the art-world, the SI's aims were to reveal

12   Simon Sadler, *The Situationist City* (Cambridge: The MIT Press, 1998), 2.

13   *Simon Ford, The Situationist International: a User's Guide* (London: Black Dog Publishing, 2005), 34.

14   Asger Jorn, "Notes on the Formation of an Imaginist Bauhaus," in *Situationist International Anthology*, ed. Ken Knabb, trans. Nadine Bloch et al. (Berkeley: The Bureau of Public Secrets, 1981), 16.
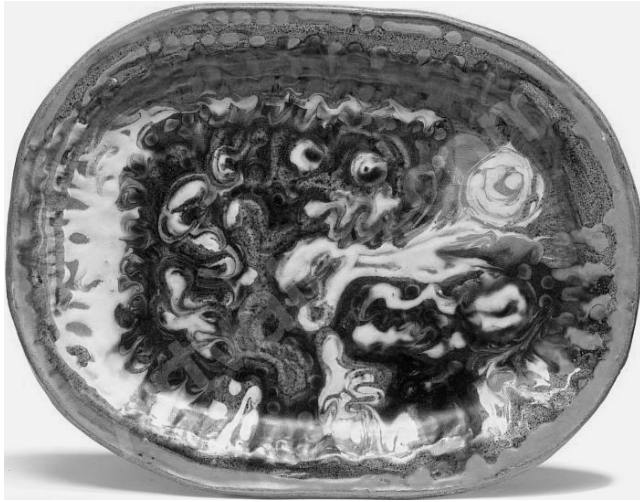
Asger Jorn, *Fabeldyr*, 1953

and escape the bounds of built and conditioned environments. Jorn's ceramics fail to challenge the linear production of traditional ceramic forms which guide the body through a series of techniques within the established space of the studio. To upset this productive order would have logically conclude the practices and theoretical basis of the SI. This theoretical deficiency perhaps describes the distance between Guy Debord and Asger Jorn and the reasons for their eventual parting of ways. From his example, we see the tenacity of disciplines themselves. We see that while one finds emancipation from one aspect of production (for Jorn the decoration of ceramics), other constructs hold tight.

Common to these historical and contemporary examples is a consciousness and manipulation of the framework of the discipline itself. They demonstrate the plasticity of ceramics as existing on a level above that of the material itself. The framework can be understood physically and spatially. Whether this framework is limited to a discrete studio or a larger global network, it is a matrix in which the individual operates. The spatial construction cannot account entirely for the traditions of any disci-

pline. However those constructs have the ability to guide practitioners through normative forms of work and knowledge.

Dead Ringers

For my own activities in the ceramics studio, it became increasingly clear that mastery over the material, as I understood and pursued it, would form me in the image of the traditions of ceramics. I would, on this trajectory, like the studio's physical composition, become a physical trace of the craft. Sitting at the potters wheel in an attempt to authentically explore form through material mastery, I would end up producing the works of others. Particular treatments, a bowl's rim or a surface texture, emerged in my work in spite of my intents.

In an attempt to escape this subconscious conditioning, I chose to actively indulge in the conditions of the studio. Unable to function without a discipline's tether, I would internalize the processes, material constitutions, and forms of the studio. Grayson Perry indulges in this way. Where his approach is what he calls a "gimmick" and thereby a social endeavor, mine focused on the conditions of production: the shrinking of clay, equipment, and utility of objects.

Produced at the International Ceramic Research Center Guldagergaard, in Skælskør, Denmark, the series *Dead Ringers* was an attempt to manifest my ideas of working in the studio as a navigation amongst its structures, objects, and techniques. From the premise that the matrix described by the environment of the studio affects all levels of production and the resultant form, no attempts were made to produce unique forms. I was playing with the existent situations and conditions of the space, developing a loose methodology for remixing its forms. This method began by allowing myself to fetishize the studio and its objects intuitively. The kilns, their digital controllers, all variety of buckets and measuring
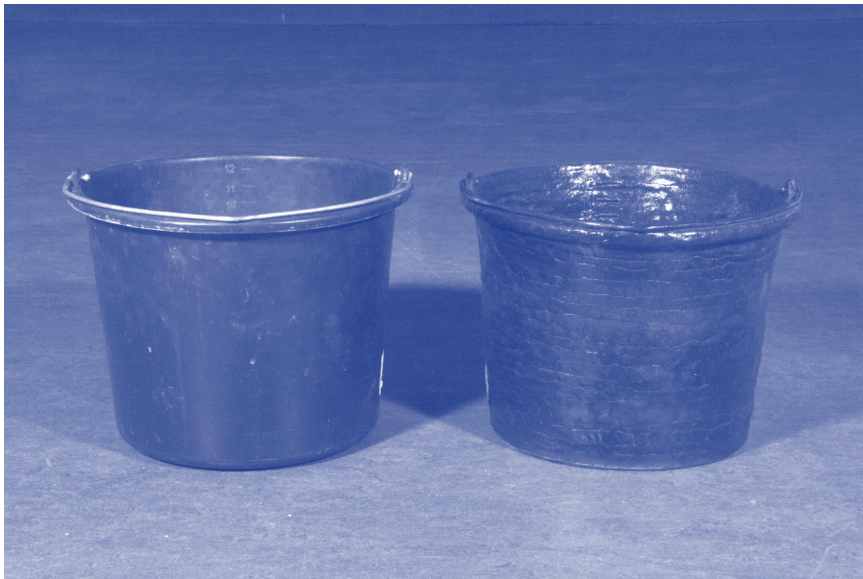
Bjorn Sparrman, *Dead Ringers, Measuring Buckets,* measured arrangement, 2013

Bjorn Sparrman, *Dead Ringers, Adobe,* in the Guldagergaard kiln room, 2013

containers, and a very old wooden paddle became my subjects. Instead of searching for agency in the plastic manipulation of a material, my strategy became a search for agency in the plastic manipulation of the objects and spaces of the discipline. As the title suggests, I made copies of these various objects. This was done by hand with minimal collection of tools: an old steak knife, a paper measuring tape, and a pencil.

As I made many copies of buckets and measuring containers, I was playing with the various forms of mimesis in ceramic production. These were sculptures, undeniably handcrafted. In this way they represented the original in form. As ceramics vessels, they duplicated the utility of the original. The proficiency of the copy could be measured by volume, and numerically judged (95% the same volume = 95% perfect work). Deficiencies in visual mimesis could perhaps be made up for by its accuracy of utility and visa versa. The originals and their copies are displayed side by side in large carefully arranged groupings. The arrangements produce a sort of binocular viewing device, a device for accessing the structural dimension of the studio itself.

Kilns hold a special place of honor in the ceramic studio. They are ascribed names and personalities. Fickle pieces of equiptment, they harbor a lot of emotional energy in the studio. A copy of the smallest kiln in the studio was made out of adobe, an unfired clay consisting of all the clay scraps from the studio mixed with horse manure and sawdust. Although lacking functionality, it worked just as well as a fetish object, joining a cast of characters in the kiln room. It became a sort of shared idol constituted by discarded materials and given a universally revered form. It was a sort of sculptural regurgitation of a shared energy of the discipline, at least in this particular studio.

A wooden paddle used for shaping clay, was rendered in earthenware, a porous sort of ceramic clay. While still plastic, copies were impressed onto various surfaces and spaces of the studio. Instead of giving form, it received form. I wanted the studio to physically

Bjorn Sparrman, *Dead Ringers, Paddle*, 2013

shape the work from start to finish. This is a caricature of my theory about the ways in which the studio nurtured normative forms of production.

While the ceramic studio became my venue for thinking about these ideas through happenstance, the works managed to set up a preliminary method for thinking and acting in my environment. Namely, I picked apart the elements of a navigated space or situation to test their qualities and plasticities. These works were momentary, reflecting particular objects or emotions selected from an edgeless mass of elements constituting the studio and community. I reduced the elements of the studio and described it on the terms of several dissimilar objects.

The observed influence of the studio has suggested that its structure contributes to the actions within. Therefore, to change one's action, one needs to change on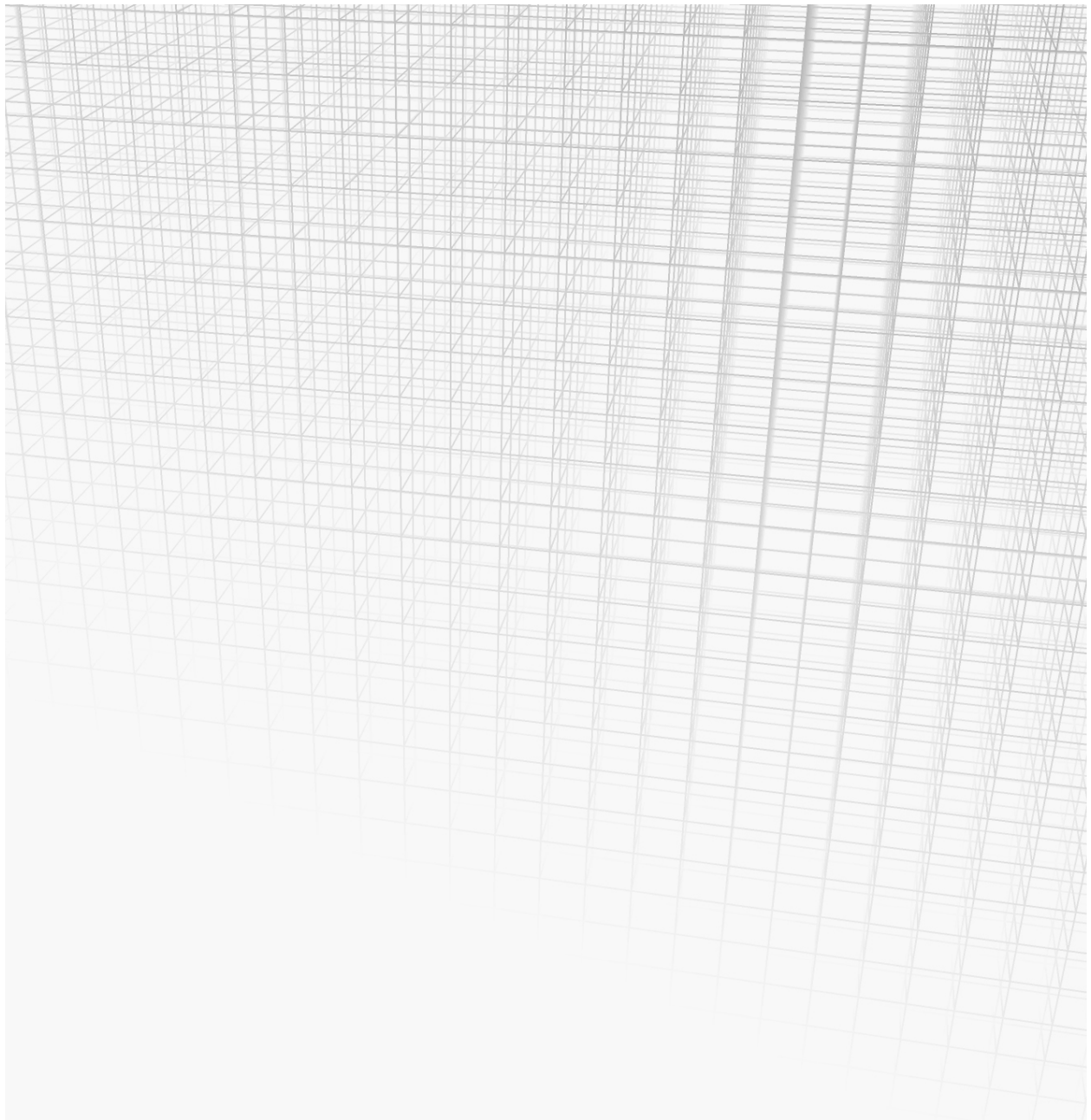e's environment, physically or otherwise. It then leaves the question: without a framework, without a matrix of anchor points from which to propel oneself who can we be?

Bjorn Sparrman, *Dead Ringers, Paddle*, 2013
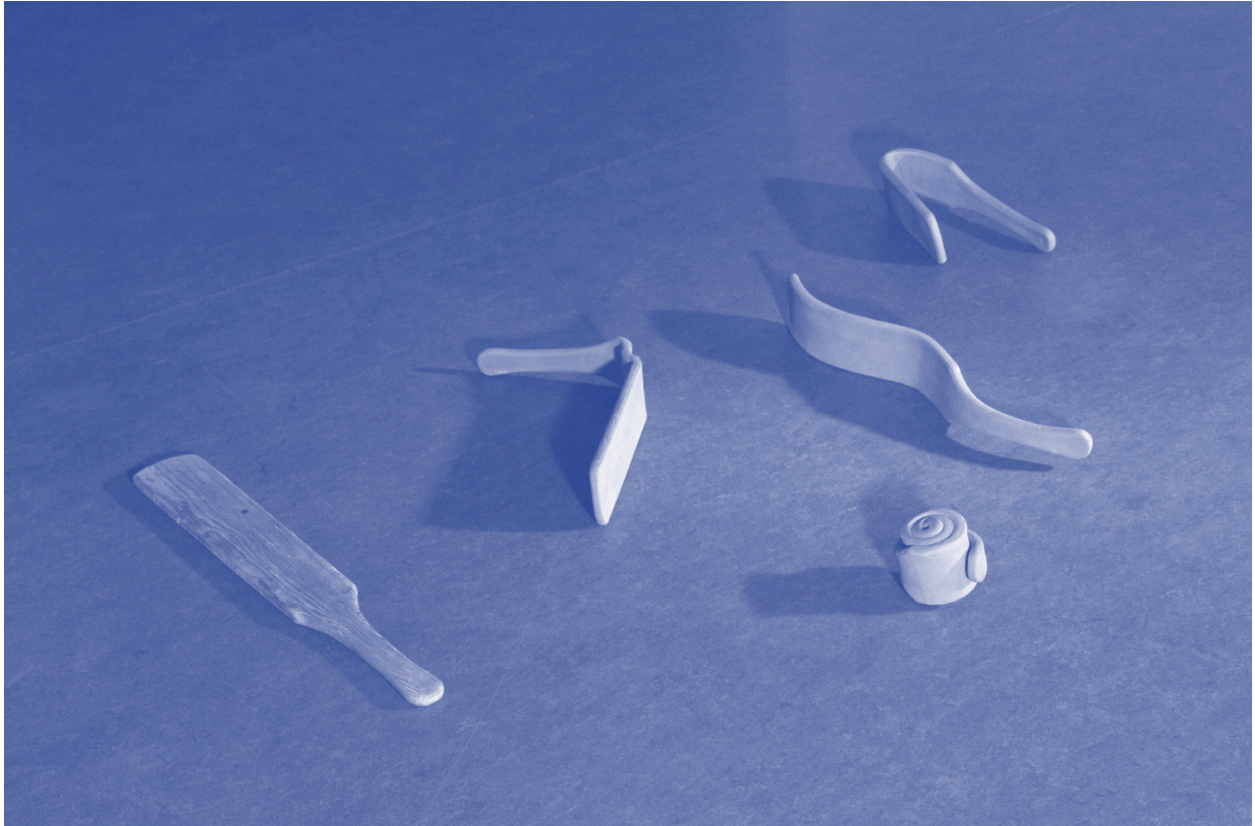
Bjorn Sparrman, *Dead Ringers, Paddle*, 2013

2. Ideology, Vantage, Matrix

We understand the environments in which we live and work as composed images. I began to think about spaces geometrically as I worked in the ceramic studio. While I knew full well that these disciplinary dialectical spaces were composed of ideas and objects in unison, describing these together as purely geometric, I could physically imagine the operational limits of the mind in a dimensional space with the same units. Although the interweaving of these two components of constructed space, that of materiality and that of belief, is often unarticulated, this dynamic is present in any action. Articulated connections between material arrangements and ideology (the connection between form and program) are often flawed. While their interrelation is inescapable, the nature of such is fleeting. Many of Modernism's great failures can be summed up as miscalculations or overestimations of the link between form and ideology.

My work has come to rely on the understanding of a composite matrix of operation. This is a conceptual geometric space in the mind composed of objects and ideas. Ideologies emerge from the strict formulation of these conceptual spaces. Our perspectives on the physical world become spatial and ideological. This internal image of space is projected back onto physical spaces and onto ideas such that movement in space is movement through ideas, and visa versa.

Previous page, *The Million Line Matrix,* Bjorn Sparrman

The Ideological

I talk about this composite matrix and the experience of space in terms of ideology with a bit of hyperbole. We do not explicitly think about our surroundings as an immutable matrix. It is, though, helpful to employ the extreme language of ideology. The mind tends toward the rigid structures of ideology as it seeks coherence in the contexts of a variegated spatial and social milieu with embedded epistemologies. We are never supplied with adequate information for a completely just understanding of any situation or object. Yet, our internal desire to make sense of the evidence we receive inclines us toward inaccurate and contradictory ideologies. Ideology describes an extreme limit of this tendency. I use the term as a base from which to describe and manipulate the important or crucial elements of experience in space.
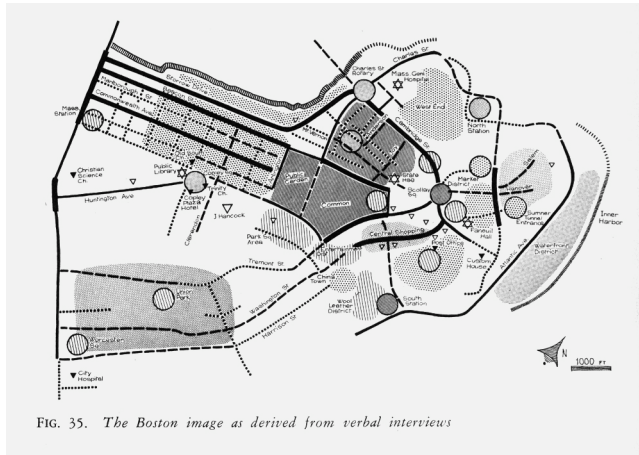
Marxist philosopher Louis Althusser describes ideology as a "'representation' of the imaginary relationship of individuals to their real conditions of existence".[15] This act of imagination requires the subjectivity of a individual. Ideology is not an entity that can exist outside of the mind. And yet, like language, it is grounded in a shared space, anchored by a large group by objects, relationships, rituals, and rhythms. Althusser identifies a collection of institutions which he calls "ideological state apparatuses" constituted by social practices such as religion, family, media, etc., that guide groups of people in shared thought and action. In this way we cannot understand ideology as external to the body, yet we can parse its rutted patterns within the external environment.

Ideology is a complete construction. It describes a complete image with closure and sequential logic. It grounds those who carry it. The mind is determined to relate the phe-

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15   Louis Althusser, "Ideology and Ideological State Apparatuses," in *On the Reproduction of Capitalism*, trans. G. M. Goshgarian (London: Verso, 2014), 256.

FIG. 35. *The Boston image as derived from verbal interviews*

From *The Image of the City,* image of the city of Boston derived from verbal interviews, 1960

nomenon of experience, to make sense within a closed system. This innate attempt produces emergent beliefs or conclusions, regardless of logic or fact, from our experiences. Insofar as ideology is an ordered system, we can talk about it geometrically and spatially.

In this thesis, I focus on representation of space, the movement therein, and the apparatuses that make this viewing possible: the camera, the body, traversed environments, and the site of re-viewing. Toward this exploration, my understanding of ideology is geometric and complete. It is the summation of traversed space. Kevin Lynch, in *The Image of the City*, sets out to describe the process by which we understand the layout and interrelatedness of urban landscapes. He studies the "mental image of that city which is held by its citizens."[16] His techniques identify various structural topologies in the city that form a complete image from a human's horizontal perspective, a coherent or legible pattern.[17] The necessity of this study of perception of

16   Kevin Lynch, *The Image of the City* (Cambridge: Harvard University Press, 1960), 2.

17   Ibid., 3.

the urban environment is rooted in inaccuracy, the inability of the human to imagine a city reliably. Urban forms can be read more or less accurately depending on the sequences and rhythms of urban features: paths, edges, districts, nodes, and landmarks. What Lynch describes as the "image of a city" could also be described as the ideological matrix of an environment. This "image" is exactly that of Althusser's "imaginary relation to real conditions of existence" writ physically and geometrically, if while not accurately, then earnestly in the mind.

Yet, this formulation of imaged space as purely ideology is deficient. At times, the experience of space defies structure, understanding, and comprehension: to be lost, to wander aimlessly, to be spatially contradicted, to be destabilized, to experience the sublime. The sublime visage of traversed space does not structure space on known terms but transgresses the structures that we have assumed and that have been worked into our brain through repetition or logic. These experiences, too, are subject to what I describe as ideological, merely inverted. The sublime experience disregards our internal desire for closure, supplying instead uncanny debased sensations. In this way I discuss ideology as constituted by the structures of external environs against those mirrored by the mind. To be confused and debased is a playing out of ideology, as imagined structures are thrown into contrast with the unknown. In my spatial explorations, the ideological is at times reduced to an attitude, sublime relationship, a kernel of experience, essential quality, a summation of the whole, an essential theory, or foundation.

Perspective, Perspective

When we talk about perspective, we refer to two things. Perspective, while originally referring to optics, has long been a metaphor articulating the ideological consequences of vision. Perspective describes the geometric relation of objects in space to a particular focal point. This focal point is likely a lens, eye, or camera. From a point in space, physical ob-

jects relate to each other in certain ways. Small things dwarf their distant superiors. Large things at distances become small. New shapes emerge from the reapportioning of scale. Hierarchies are ordered in this manner.

Perspective also refers to ideology. Used this way, the term points to the limits of the subjective existence. In the way perspective geometrically demands a focal point, perspective as a condition of radical subjectivity describes the individual as a single point observing the chaff and chunks that make up the world of ideas and beliefs. The objects of these two definitions of perspective are the two components constituting the composite matrix of perception: ideas and materials. When we describe optical perspective we could also be describing ideological perspective. Likewise, according to this composite matrix, when we talk about movement through space we also talk about movement through ideas or beliefs.

I have attempted to establish the playing field for movement in space and its visages. The artworks that I present in this text do not make a specific political comment or propose a polemic. They are, however, working with the stuff of ideology; ideology as defined by the desire to unify and make sense of the matrices in which we float.

Ideological Assemblies

Building projects emerge from partisan desire and theories describing the constitution of society and the physical world. Their structures may be designed to direct the movements and rhythms of people toward particular ends. Others are given form with no regard to their inhabitants. There is always some inequality between builders and pedestrians. In both cases, the discrete momentary actions of builders have a direct and perennial effect on the lives of inhabitants affected by the desires and theories, i.e. ideologies, of others. The link between the ideologies of producers and the resultant activity in the construction
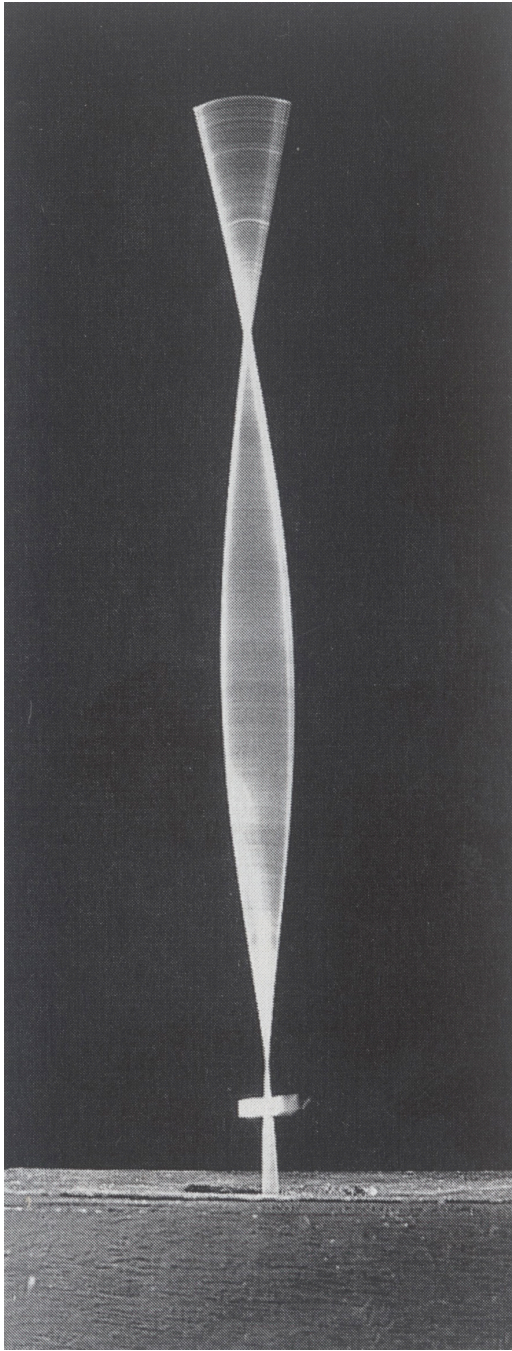
Naum Gabo, *Kinetic Construction (Standing Wave),* 1920

process is tenuous. Even when building projects aim to cause certain activities, they are likely to fail. When I talk about ideologies written across a built or constructed environment, I do not refer to the explicit intentions of the builder as much as the saturation of the environment in ideology from end to end. The examples that we will look at illustrate the various sorts of relationships between ideas and produced forms. While some of the strongest attempts to impose ideas through form have failed to take hold, inadvertently ideological constructions can be seen to have permeated culture.

Constructivism emerged with the Communist Revolution in Russia in the late 1910's. It held that new social order requires new visual language and that built environments need to facilitate new political structures and ideologies. It rejected apolitical art. They designed factory uniforms, works of graphic design, architectures, stage designs, and costumes. This freedom to cross all boundaries, or more accurately, disregard or unlearn disciplinarity, was a recognition that disciplines are themselves doctrinal. They established new styles and forms of production that coincided with their political ideologies for the creation of a new society. The accuracy of this project is not fully known as many Constructivists were forced to flee Russia in an ensuing consolidation of the Communist party. Regardless of this doubt, the project, like many other Modernist ventures, was shortsighted in

In these video tests, I walk directly toward various sculptures on the MIT campus while holding a camera. In the editing, I manually scale and transform the video so the sculpture remains the same size throughout the duration of the shot irregardless of the camera motion. This either involved scaling the image up, or shrinking the frame down as I approached the sculptures. In this second case, the frame jumps around the screen in accordance with the inconsistencies of walking. My own ambulatory movement becomes animated by the frame of the video on a larger dark screen. I imagined the sculptures asserting their solidity against my own idiosyncratic movement.

I do not move around the sculptures. Only approaching head on, I deny the sculptures some of their ability to guide me circularly. While my subjects remain the same size, viewing angles and fidelities change.

its understanding of the necessary communal construction of languages, visual or otherwise.

Constructivism was successful in its synthesis of earlier and contemporaneous avant-garde approaches of radical abstraction with political ideology. These precursor projects date back to the works of William Turner and his interests in the optical mediation of space. He lay the groundwork for an increasingly systematic breaking-down of the practice of painting into the rendering of reflected light. The canvas increasingly became a perspectively particular yet indexical surface. This attitude colored the discipline of painting for much of the early part of the twentieth century through Impressionism, Fauvism, Pointillism, to Analytical Cubism. Cubism's shift toward the flattening and realigning of the three-dimensional faces of objects onto a single plane reaffirmed the constructed nature and objectifying possibilities of painting. By rendering the various sides of an object on a single picture plane, they also described the ambulation of the painter in time. Life painting ultimately renders the external world by some system. Cubists developed a system that rendered the external world accurately in ways realism could not. The Constructivists understood the ideological and epistemological implications of sight, perspective, and mediation illustrated in Cubism and other avant-garde movements. They used these visual techniques to change perspectives and provide a new

These short clips act for me as small suggestions of how we will relate to the objects around us. With the help of cameras and monitors I hoped to understand the kinesthetic possibilities of stationary objects. Sculptures stand there as explicit objects to be viewed and perambulated and were thus germane objects for experimentation.

view for a new social era. Many works utilized kinetic components. Naum Gabo's *Kinetic Construction (Standing Wave)*, actualizes these concepts. A metal rod actuated by an electric motor forms a standing wave. It rejects previous models of non-functional art and supplies the viewer with a contingent ever-changing visage.
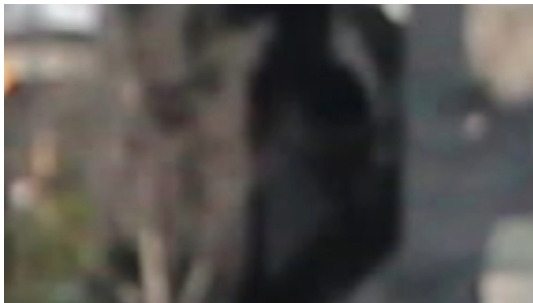
Stills from
Study #2, Transparent Horizon, Louise Nevelson
Bjorn Sparrman

City planning and infrastructure projects consolidate the perspectives of limited groups of people into a navigable matrix with ideological implications. Examples to this effect are endless. Vision is fundamental to control and safety of the individual. Considerations of vision are a matter of safety for all animals. For humans at least, the structures which we build augment our vision, either, through explicit optical devices (guiding and sequencing objects in space through time) or by establishing rhythms.

The iconic urban structure of Paris was driven by a clearly articulated ideological intention. In anticipation of civil war in the 19th century, the Haussmann renovations widened the narrow streets into boulevards. Their new widths and arrangements made them more difficult to barricade, and provided a direct route between

Stills from
Study #3, ELMO-MIT, Dimitri Hadzi, Bjorn Sparrman
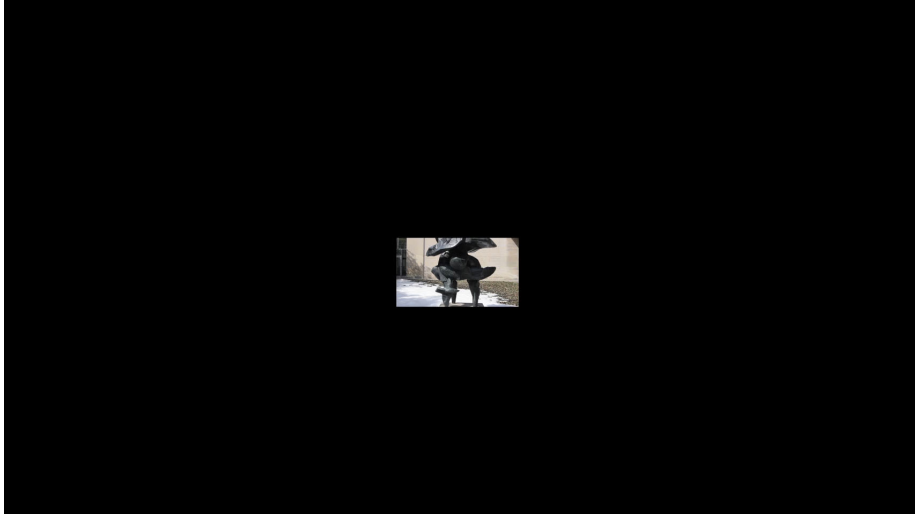
Stills from
Study #1, Birth of the Muses, Jacques Lipchitz
Bjorn Sparrman

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military barracks and working-class districts prone to civil insurrection. This, combined with increasing rent, forced the working classes to the suburbs further deterring assembly and collective force. While these renovations did not prevent further conflicts in Paris, the urban arrangement has remained a vivid symbol of the particular political moment whose instrumentalizations of urban form are laid bare.[18] In traversing these Parisian boulevards one cannot be said to reanimate the Second French Empire. However, its arrangements have indelibly set a focal point for the city that has guided its communal image. The regime of the Parisian urban focality became a point of resistance and impetus for the actions of the Situationist International whose activities we will continue to discuss in the next chapter.

While the organization of Paris emerged from a particular political moment, the gridded arrangement of roads in the Western United States was also tied to the ideology of its construction. It did so without regard to the effect

Stills from
Study #5, TV Man or Five-Piece Cube with Strange Hole, David Bakalar, Bjorn Sparrman

18   Walter Benjamin, *Reflections: Essays, Aphorisms, Autobiographical Writings*, trans. Edmund Jephcott (New York: Schocken Books, 1986), 160.

Plan of Paris showing Haussmann's reconstruction proposals

Still from *The Grapes of Wrath,* 1940

of its structure on the collective image of its space. Land was divided into an array of square-mile plots in accordance with the Public Land Survey System (PLSS). The Eastern US was first subdivided using the system of metes and bounds which had been carried over from Great Britain. This older approach resulted in plots conforming to land features. The straight lines of the PLSS have been written into images of the American West through film, photographs, paintings, songs and stories. It has become a visual trope of the hardship of the American dream. John Ford's 1940 adaptation of John Steinbeck's realist novel, *The Grapes of Wrath* tells the story of an Oklahoma family forced to travel to California in search of work during the Great Depression. Their arduous journey across the Southwest is marked by the endless straight roads broken up by perfectly square intersections of the PLSS. This image has been endlessly reused in film to

mark the exposure of the subject powerless against the elements. The intents of the Public Land Survey System were unrelated to this very specific and powerful visage. Meaning has emerged from the history of the land. The grid of the American West has come to represent and physically enact an ideology of uncompromising conquest. The ideologies of its designers were inadvertently petrified in their creation.

In all cases of physical construction, there is a distance between the intents of the producer and the ideologies that the construction ultimately advances in a population. Understanding the difference between these will help us identify the nature of the limitations that environments impose.

The Matrix of Operation

When we talk about perspective and movement, we must consider our understandings of spaces which contextualize and prompt action. Perceived space is tied strictly to the observer. It is by this arrangement that we refer to space. The configurations of actual environments matter little against this internally presupposed ideological space. I have proposed that we understand space as a composite matrix. The framework of the matrix is constituted by a controlling element of experienced space. These elements control but also guide one through its dimensions. Their orientations permit certain progressions of an ambulatory subject. The perceived world is a strange composite of imagination and visual clues. We desire to make sense of the phenomena we encounter. In doing so, we imagine the negative space between phenomena. The next chapter will look at the consequences of movement through these spatial matrices. It will address the permeability of this matrix, asking what happens when the spatial matrix breaks down, when one looses hold of the objects or ideas that constitute space.

The matrix is a common structure to understand dissimilar spaces or situations. I imag-
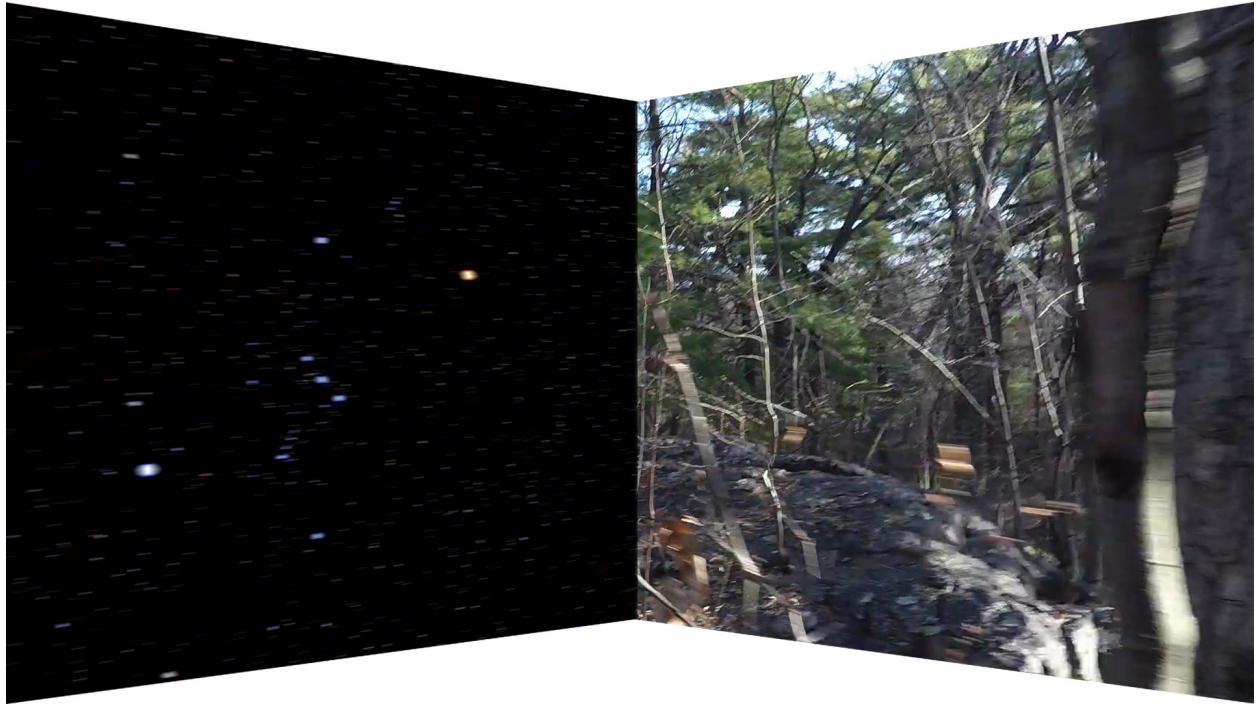
Rendering of
Wander Piece,
Bjorn Sparrman

Wander Piece

May, 2016

In *Wander Piece*, the same camera motion is carried out in multiple side-by-side environments with diminishing visual reference points: the city grid, an open field, the middle of the ocean, outer space, a minimal virtual matrix.

Holding a small video camera, I wander through rough terrain. The camera ducks and bumps into objects, highly affected by the landscape. The idiosyncratic jostling of the camera is carefully reconstructed in post production. The motion of the first image is applied to other spaces

such that the character of the original footage controls the next.

These synchronized images are projected high in the corner of a room, one environment on each wall. Just above head height, the images loom over and surround the viewer.

I have periodically posed the following hypothetical to myself as a test of character: what would I do and who could I be if I lost all documentation of my work? As an artist who relies on documentation of past accomplishments for future opportuni-ties, the hypothetical strikes a chord. *Wander Piece* tests and plays out this anxiety. In this case, an activity, guided and contextualized by a singular space, is thrown into an unrelated space detached from any schema to guide meaning.

ine this collection of spatial elements as a jungle gym of anchor points for a moving subject. They provide security and context even though they exert a limit on the movement of its subject. This mentality is at the core of bondage fetish. In her film *Lovely Andrea*, essayist and filmmaker Hito Steyerl navigates the world of *Kinbaku* rope bondage in search of a photo taken of herself in bondage twenty years earlier. Her translator and assistant director, Asagi Ageha, a bondage and self-suspension performer herself, describes the act of being suspended by ropes, while painful and confining, as freeing.

"When flying in the air, I really feel free. On the other hand I'm bound by rope to the center of something. I feel these two feelings at the same time. Maybe I can't live without this feeling anymore."[19]

Mounted from a single anchor point from above, a self-sufficient environment is established for Ageha. Her field of affect is reduced although clearly defined. Hers is a matrix of one. The words "BONDAGE IS WORK" flash on the screen followed by images of uniformed wage-workers. Steyerl suggests a similarity and distinction between the wage-worker and the bondage-worker. Both bound by some framework, the self-consciousness and consent of bondage is a comfort in a limited and self-sufficient perspective. Our spaces of comfort are

19   Hito Steyerl, *Lovely Andrea*, trans. Sylvia Schedelbauer et al. (2007: Japan), video.
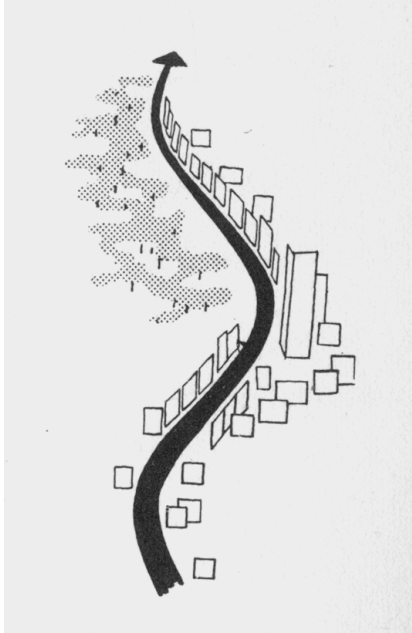
From *The Image of the City,* a dynamic path, 1960

defined by their completeness and closures. By creating a consciously closed framework for existence through bondage and self-suspension, Ageha is able to temporarily establish a space of comfort within a complicated and unresolved exterior world.

Kevin Lynch divides elements of a perceived city into paths, edges, districts, nodes, and landmarks.[20] His aim is to describe the types of features that contribute to perception of the city as an interconnected whole by the individual (the image of the city). He does not guarantee the successful imaging of the city. He describes cities as more or less legible. He identifies Jersey City as highly illegible as it lacks distinguishable features.[21] Interviewed residents reported navigating by referring to street signs, or counting intersections in an attempt to make sense of the homogeneity of the buildings.[22] This indistinguishability, while imaged by the observer as an even field, refuses to function as a reliable matrix in the first-person view. The cognitive image may then compress, become distorted, or scrambled. This speaks to the true nature of the spaces we encounter as embodied ideological beings. Our understanding of such is contingent on memories, faculties of movement, and our attention.

20   Kevin Lynch, *The Image of the City,* 46.
21   Ibid., 2.
22   Ibid., 32.

The American psychologist James J. Gibson sets out a hypothesis regarding the perception of space which he calls "ground theory," holding that "visual space should be conceived not as an object or an array of objects in air but as a continuous surface or an array of adjoining surfaces."[23] In his book, *The Perception of the Visual World*, he sets out to describe in excruciating detail just that. He pursues the question of how retinal images (the pure sensations of light acting on our eyes) translate to our perception of the world on the terms that we know and describe it. His research began in the army during the Second World War. He questioned how pilots could perceive motion, distance, and speed from the air or with limited visual clues. Ground theory reconciles a reduced visual field where the space between objects lack distinguishable information.

He describes a split between empiricist and nativist explanations for the development of human understanding of three-dimensional space when privy to mere visual clues (twin retinal images). Do not forget that we only see things in the second-dimension. The promise of 3D or virtual-reality media is really only a promise of stereoscopy. Empiricists hold that our ability to interpret these retinal clues comes from exposure to them. Nativists hold that we are born with the ability to interpret these clues. Neither theory proves satisfactory for Gibson. Influenced by gestalt psychology's theory of perception as organization, Gibson instead reasoned that "The brain is a three-dimensional organ and the neural process of dynamical organization must therefore occur in a three-dimensional field. The perception itself, then, would naturally be three-dimensional if the underlying physiological events were."[24] He asserts here that our perception of space is tied up in a conceptual geometric space. We do not have the ability to understand retinal clues outright, but we

23   James J. Gibson, *The Perception of the Visual World* (Cambridge: The Riverside Press, 1950), 6.

24   Ibid., 23.

FIGURE 56. Motion Perspective with an Overcast or Ceiling
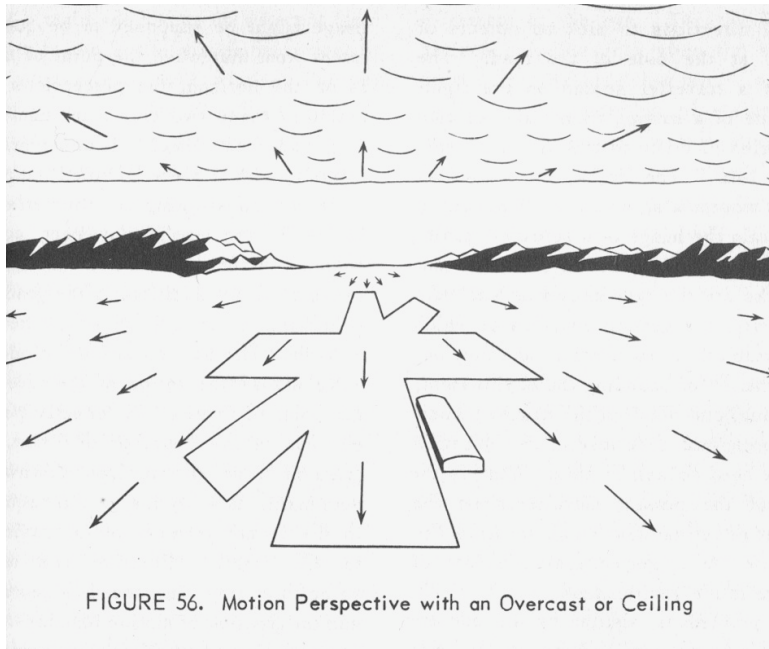
From *The Perception of the Visual World,* diagram
depicting the conditions of aerial motion perspective,
1950

have a conceptual understanding of space in which these images are fitted and flesh out our perceptions of the visual world.

For Gibson, this conceptual space is purely Euclidean (an even x,y,z coordinate space). The creation of a conceptual space is based on "'self-evident' geometry" such as Euclid's parallel postulate. His reckoning of the mind and space suggests that we are equipped with a cognitive matrix to affix more than visual clues, but by extension, as we have discussed, ideological objects. Furthermore, in this conceptual space, phenomena other than pure sensorial clues may as well constitute its matrix: beliefs, opinions, questions, etc. In this way, the physical world, as we perceive it, mingles naturally as a spatial conception with pure ideas.

This seems to present a problem for the agency of the individual. If our mind only makes sense of
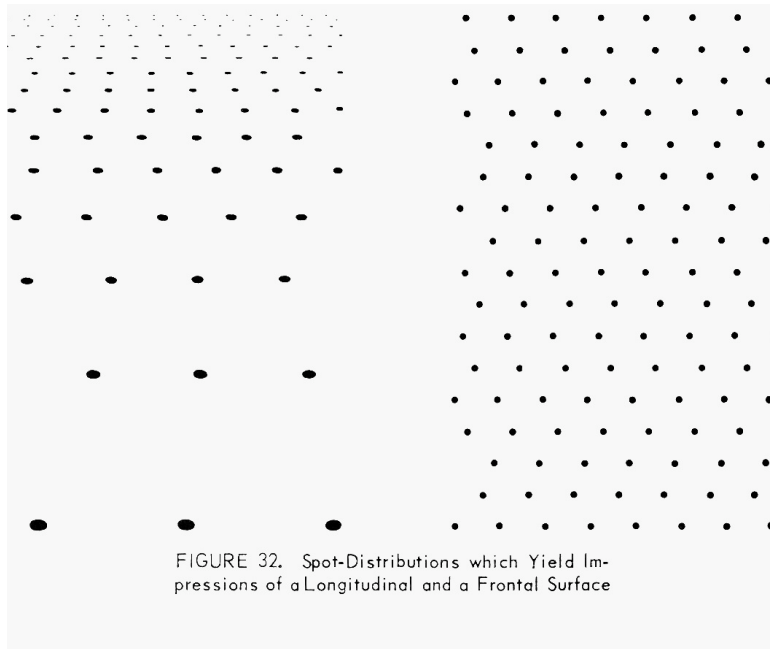
FIGURE 32. Spot-Distributions which Yield Impressions of a Longitudinal and a Frontal Surface

From *The Perception of the Visual World,* diagram depicting the effects of minimal retinal clues, 1950

space through the conception of an ordered Euclidean space (or a grid) and, by extension, ideological perspective, what freedom do we have to move outside of these tethers? Rosalind Krauss makes note of the success of the grid in visual art despite her claim that "never could explorations have chosen less fertile ground [then the grid]".[25] She accuses it of silencing discourse. If we understand the images of grids in art, from Mondrian to Sol LeWitt, as extensions of the same substance as ideas (the very premise on which LeWitt based his entire practice), Krauss may have a point. She asserts that the grid refutes the internal order of natural objects themselves such that the "space of art" is apart from nature.[26] However, this seems to understand the grid or concept in the foreground of perception, dividing up

25   Rosalind Krauss, "Grids," *October* 9, (Summer, 1979), 50.

26   Ibid., 52.

external objects arbitrarily.

We may instead understand these grids as operating more like Euclid's postulates, constituting a background over which experienced phenomena are mapped. This sort of arrangement is suggested by Gibson who does not describe a subdivided space, just a matrix for the arrangement of clues. This does not absolve conceptual space of its ideological or mythologizing tendencies, but it does leave room for the perceived phenomenon, visual clues ala Gibson, to force themselves into our conceptual spaces which we then attempt to locate amongst ideas.

Paths and an Ambulating Observer

Either we pass through environments or environments pass by us in time. This discussion of perspective is limited insofar as it is often recalled as a sort of static state, a picture. The camera has perhaps trained us to think in this manner. It is easy to think about perspective as ordering our environments when the scene is static. However, human experience of space, its ability to guide us and our tactile relationships to objects and ideas, comes through movement. It unlocks a variety of other senses and faculties. Movement contributes to visualizing and relating to space. Our own physiology is already automatically mobile. The few inches between our two eyes is a distance between which we constantly travel. The stereoscopic experience of binocular vision maintains the perception of depth in space that we achieve through larger motion. We have been deceived into believing that 3D vision is merely a function of having two eyes. The advantages of two eyes disappear at distances of around ten meters or greater. At this range, we must move our bodies to

Twin Turns

October, 2015

Two screens are situated side by side. Both images are constantly turning. Every possible turn in the hallways of MIT's central campus building was filmed. In the left image, the camera takes every possible right turn. In the right image the camera takes every possible left turn. The clips are all different in length. The clips continually spill, one to the next, without any pauses in motion.

The effect is that of a constant flow of movement in space. Although the trajectory of the images move toward each other, the wiping effect of the background makes the whole image appear to expand away from the center.

In the creation of this piece, I questioned how we could possibly break down particular movements into topologies. Here I proposes ninety degree right and left turns.

perceive parallax and depth.[27]

Movement does more that replay the effects of binocularity. The project of Cubism was to provide a simultaneous experience of the object rendered flat (and thus in accordance with our eyes which see things flatly) from several angles, pushing past the limits of perception. When we proceed through space, rhythms emerge. Our velocity mediates these rhythms. These rhythms have the ability to lull us; hypnotize our senses. They also produce specific sequences of visages which play on our faculties of reason and narrative.

Trajectories, in their hypnotic narrative ways, have a particularly strong appeal to us in the way they give us access to environments with a greater dynamic range and orchestration of our senses. Of the elements of the city that Kevin Lynch identifies, it is the path which he spends the most time describing. Namely because it is the experience of the path that connects all of the other elements of the city. It is during our traversal of paths that our perception of cities can become skewed. He describes a path that is unreliable, whose gentle curves can mask absolute locations in space. Paths constitute, for Lynch, a

27   James E. Cutting, "Perceiving Scenes in Film and in the World," in *Moving Image Theory: Ecological Considerations*, ed. Joseph Anderson et al. (Carbondale: SIU Press, 2005), 15.

I hoped to create a lexicon of discrete movements in space that could be reconfigured into longer sequences. What would constitute this lexicon? In separate experiments, I attempted to create a neutral traversable matrix virtually. Doing so, I hoped to escape the environmental particularities of any singular filming of motion. Yet this virtual attempt fell victim to the same ideological problems of using any singular recording; the virtuality of it was perhaps even more markedly principled, having been constructed from the bottom up for a particular purpose. My effort then shifted to recording any one motion many times. By layering up like-motions, I could begin to forget the particulars of each and experience the effects of their shared properties.

"principal resource in organization at the metropolitan scale".[28]

It is in the experience of the path that our own mental images become contorted. In his analysis of Boston, Lynch notes the "difficulty caused by the right-angle crossing of 'parallel' Boylston and Tremont Streets."[29] The curve of Tremont Street as is passes by Eliot Norton Park accounts for the perpendicular intersection several blocks later. One turn is enough to terminate the relationships that we encounter elsewhere in the city grid. We would probably not think about the relationship of Tremont and Boylston Street as we are absorbed in the gentle curve as it passes by Eliot Norton Park. This reveals a limit to our spatial memory.

This lapse in attention creates a

28   Kevin Lynch, *The Image of the City*, 84.

29   Ibid., 22.
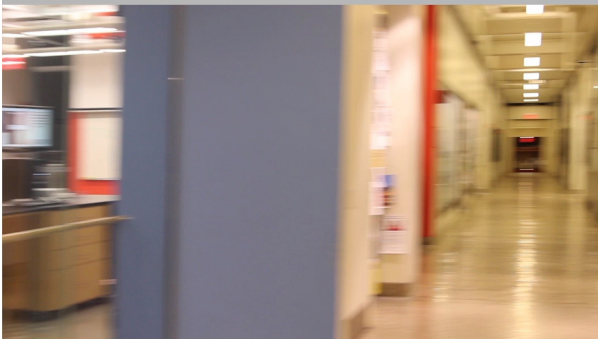
Stills from
Twin Turns, Bjorn Sparrman

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The disorienting curve of Tremont Street as it passes by Eliot Norton Park, Boston

discontinuity between the pure geometry of the city and the imagined city. The perceptually paradoxical relationship of Boyston and Tremont may push and tug at our internal desires to properly organize the city. While some of us may 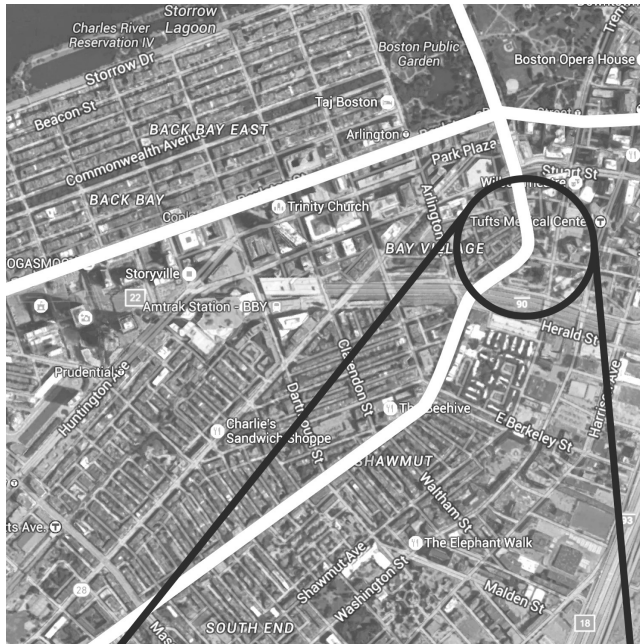reconcile this problem by referring to a map and recognizing the cause of confusion, our conceptual images of the grid will be twisted or torn by seemingly contradictory phenomenon. We may imagine there to be some zone that does not actually exist. Lynch suggests the idea of parts of the city that are connected by a "limp or elastic tie" or "an infinitely flexible rubber sheet".[30] This suggestion relies on plasticity of the individuals themselves. The question rises, how willing is one to slacken their ideological constructs? Perhaps alluding to elasticity is a bit much to ask. The process may be more similar to gaining muscle. Through the strain of exercise, small tears are made in the muscle which then heal stronger. The image is destroyed and remade repeatedly in the mind. If this analogy is correct however, one is only left more and more attached to a particular ideological view of the environment. This buries us deeper in

30   Ibid., 87–88.

the conceptual Euclidean ideological space of the mind, the image of a city, the apparatus of the built environment itself, our matrix of operation. It is a self-consistent field that does not match up with real landforms due to effects of paths and their hypnosis.

Henri Lefebvre seems to address something like hypnosis is his writings on rhythmanalysis with the concept of *dressage* (training) which is done as "One breaks-in another human living being by making them repeat a certain act."[31] This is stated very directly. However, its actuation is rarely so explicit. In the immersion of social and built environments, people are broken-in. A function of repetition, "Dressage fills the place of the unforeseen."[32] Internalized motions become our default. Regarding the navigation of the city and the rhythms of its paths, dressage is a mechanism in which we can describe the indirect training of ideological landscapes. The ideological history or quality of the built environment is passed on to its serial traveler. Lefebvre describes a "use value" in the breaking-in of animals. He suggests that we are trained by others through the act of traversing built environments. It was the normative patterns of cities which the Situationists aimed their scorn, and against which they developed techniques for moving differently. Even in their drunken stupors (or perhaps because of), they understood the hypnotic effects of paths to distort and calcify realities.

A basic understanding of how elements of space work together to create a complete system came through my meditations on the flows of production in the ceramic studio. A particular ideological perspective guided the studio community through similar forms and values. As I began to work with these conditions in mind, the world of objects and geometric perspective became the direct plastic material for manipulation. While this was

31   Henri Lefebvre, *Rhythmanalysis: Space, Time and Everyday Life,* trans. Stuart Elden et al. (London: Bloomsbury, 2013), 48.

32   Ibid., 49.

an intuitive decision in the ceramic studio, we have seen how the ideological constructions that we create merge with our perceptions of three-dimensional spaces. The conceptual mental space that makes sense of and locates retinal clues is the same space occupied by our beliefs and ideologies. Together these form a composite perceptual matrix. Within this matrix, ideas and object-spaces can be simultaneously navigated. We have seen how the sheer effort of the mind to make sense of things in an ordered matrix can create fissures and discontinuities. The experience of ideas and space in time orders perception despite our desire to perceive holistically. In the next chapter we will observe how these spatial ideological conditions have been dealt with to various ends.

3. Devices and Hypnosis

What are the implications of being within ideological ordered spaces tied up by our own conceptions of these environments? What are our options? I suggest in the first chapter that there two levels at which to function within a given discipline. One can work completely within the bounds of the discipline. We get traditional craft when these bounds are occupied calmly. On the other hand, a discipline's conditions can give way to emergent forms when we operate at a structurally-conscious level.

The command of spaces can by undone through the implementations of devices. These may be technological or choreographic. Devices can break up or inhibit the patterns tied to an environment. They recast our representations and perambulations of environments in ways that alter our understandings of them. Emancipation of this sort often relies on jarring displacements or sharp contrasts. We will also see how hypnosis and daydreaming can push through an ideologically rigid composite matrix of perception. In the realm of daydreams, the ideological landscapes can be overturned from the inside out. Devices themselves can be used to induce these oneiric situations.

Devices

The crux of Jonathan Crary's argument in *Techniques of the Observer* rests in the history of the development of optical devices alongside a changing understanding of the psychology of observation in the nineteenth century. There is a marked movement away from understanding perception as a purely optical activity. This older notion of perception is modeled for Crary by the optics of the camera obscura to whose function the eye was likened. In-

creasing recognition of the psychological aspects of vision and the deficiencies of the eye itself, prone to deception, led to a more comprehensive and complicated view of perception. Optical devices become important for Crary's argument as illustrative of the changing techniques of the observer through the nineteenth century. The observer is for Crary "one who sees within a prescribed set of possibilities, one who is embedded in a system of conventions and limitations."[33] The optical device, as an entity completely separate from the body, structures the information it receives in a prescribed manner.[34] These devices directly contribute to the creation of the observer as he describes her and are more important for Crary as "sites for both knowledge and power that operate directly on the body of the individual."[35] The optical device, for all its "conventions and limitations" leaves the possibility, in its externality to the body (being a physical object), of emancipation. These would allow "newly empowered social classes and groups to overcome the 'exclusiveness of signs'…"[36] To sum up, optical devices and systems of movement and perception have the capacity to free the observer from preceding visual paradigms. We can use optical devices or techniques to see and know things differently.

In the years after the Second World War, the Situationist International articulated their strong critique of comprehensive urban projects. Guy Debord, articulated these social concerns in 221 thesis in his 1967 book *The Society of the Spectacle.* He describes the spectacle as image mediated relationships that epitomize "the prevailing model of social life."[37] The SI's focus and theories are largely two-fold with respective praxes. Debord suggests
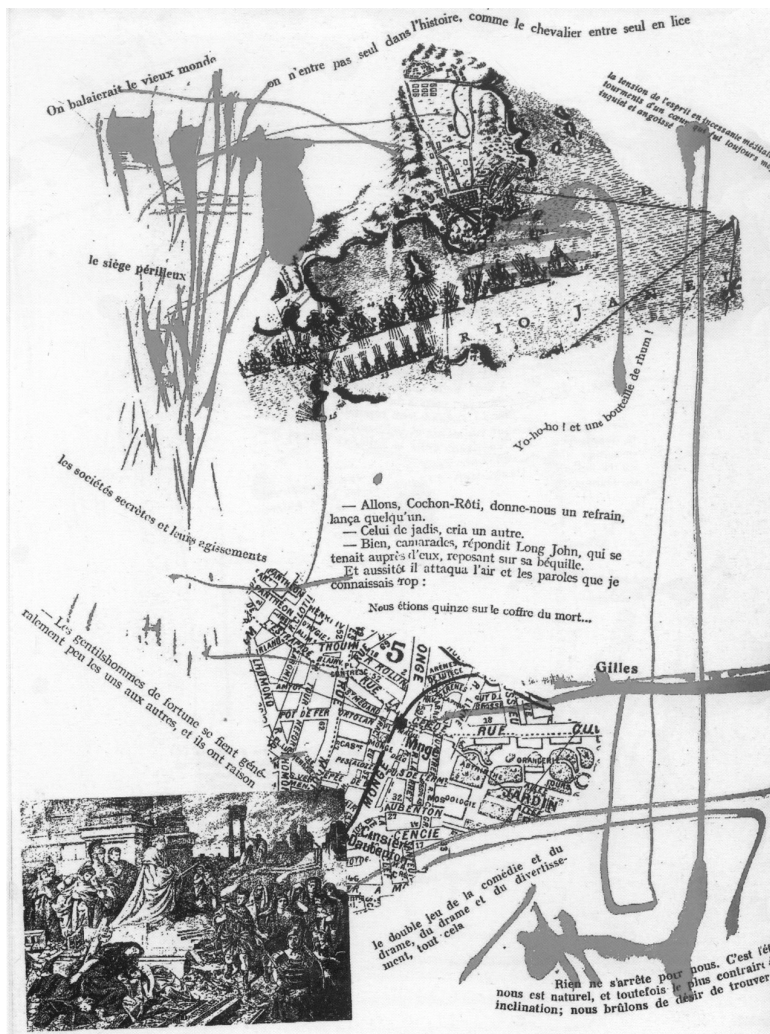
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33   Jonathan Crary, *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* (Cambridge: MIT Press, 1992), 6.

34   Ibid., 51.

35   Ibid., 7.

36   Ibid., 12.

37   Guy Debord, *The Society of the Spectacle*, trans. Donald Nicholson-Smith (New York: Zone Books, 2012), 13.

Asger Jorn and Guy Debord,
Mémoires, 1957

the use of the "artistic heritage of humanity" for "partisan propaganda purposes."[38] Images were seen to mediate relationships and guide spectators toward predetermined conclusions. *Détournement* was the resulting practice of subverting the meanings of images by their reworking. The practice of the dérive, similar to détournement, addressed and subverted the spectacle written into the urban landscape.

Articulated in Debord's essay, "Theories of the Dérive", "one or more persons during a certain period drop their usual motives for movement and action, their relations, their work and leisure activities, and let themselves be drawn by the attractions of the terrain and encounters they find there." This

38   Guy Debord and Gil J. Wolman, "Methods of Detournement," in *Situationist International Anthology,* ed. Ken Knabb (Berkeley: The Bureau of Public Secrets, 1981), 9.
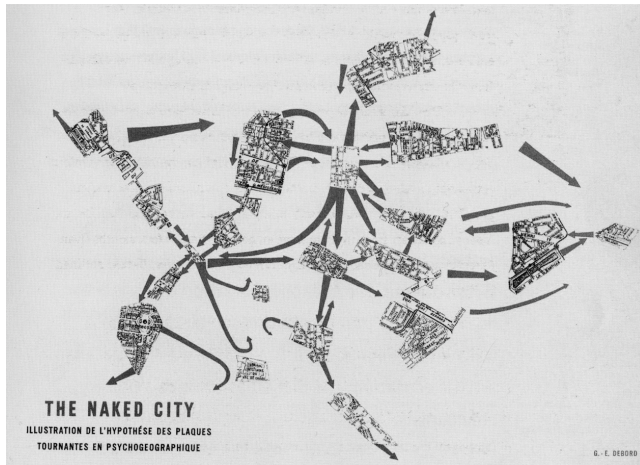
Guy Debord, *The Naked City,* 1957

practice was done with an understanding of the psychogeographical effects of the environment, the emotional and behavioral effects of traversing space, described as "constant currents, fixed points and vortexes which strongly discourage entry or exit from certain zones."[39] The dérive in practice resembled something like a disorganized bar-hop. While the dérive has, since its inception and long after the end of the SI, taken on increasingly systematic permutations by various groups, the early drunken meanders seem to have best achieved its aims.

Mirror

April, 2016

A video screen sits flat, several inches above the floor. It is spinning quickly. The screen depicts a figure staring back at the viewer. This image is also spinning but in the opposite direction. The rotations cancel out. The image is however marred by this frenetic activity, an over-application of techniques and mechanisms.

Paintings, photographs, and screens desire to become more than their flat surfaces. The wile of images lies in their multidimen-

This practice is at one moment an observation and report of the "psychogeographic phenomenon", and in another a liberating practice that creates new networks through movements and sequencing of the body in space. The practices of détournement and the dérive come together in the form of the cartographic collages of Debord and other Situationists. The grid of the city is shown cut apart and reconfigured, connected with arrows suggesting an

39   Guy Debord, "Theory of the Dérive," in *Situationist International Anthology*, ed. Ken Knabb (Berkeley: The Bureau of Public Secrets, 1981), 50.

sionality: they can exist as objects and as thresholds to other realities. With *Mirror*, I wanted to strongly assert these two qualities at the same time, to produce a totally honest illusory situation. The closer the viewer moves toward the image, toward the figure reflected back up at them, the more danger they are put in as the screen whips around at the level of their ankles. In so, this illusory window proclaims its mass, form, and momentum. The mechanism outputs these two rotary forces with opposite energies to collectively give the viewer a stable image. Yet, what were sharp lines become fluid, undulating gently. The image on the screen occasionally stops spinning, revealing sharp lines. Spinning again, the image speeds up and down, finally finding equilibrium.
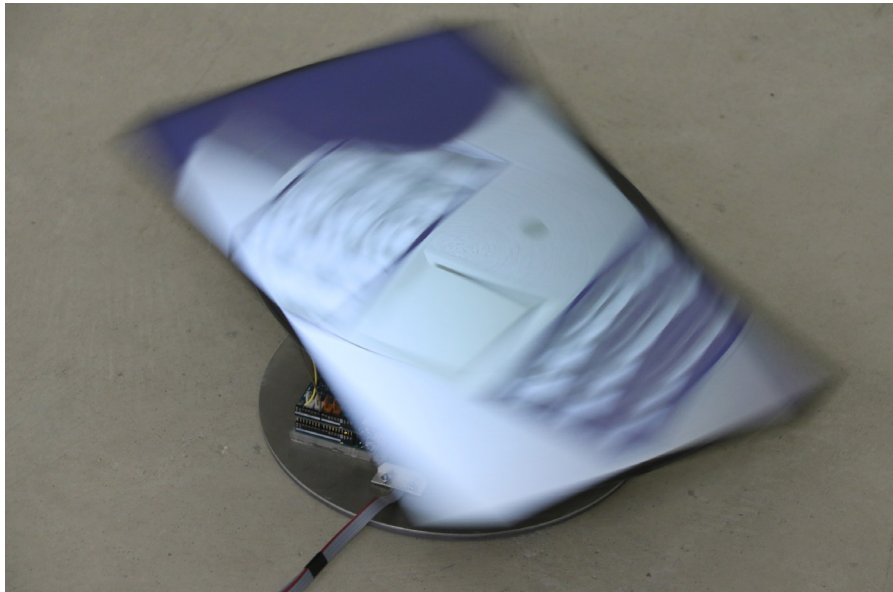
Detail view,
Mirror, Bjorn Sparrman

Installation view,
Mirror, Bjorn Sparrman

endless combination of routes in a disjointed landscape. If understood or traversed in the manner suggested by Debord's *The Naked City,* the mental "image of the city", to take the words of Lynch again, the result must be non-Euclidean. Thereby the composite matrix of perception is no longer ideologically complete. The map suggests a resistance to completion or deterministic knowledge through heretical navigations of space. The possibility of a détourned map suggests the Situationist's understanding of the urban environment as consubstantial with ideological images.

The dérive is a device in the way Crary describes them. As a device, it situates itself as an outsider to augment a particular phenomenon. Devices are prone, especially in the case of the SI and the dérive, to function as a hard edged polemics of that which already is. The device will itself eventually become the new norm. This leaves us asking when the process will end, or if there is another approach that does not abandon existent structures.

The camera has historically been the most effective liberating optical device. It has the ability to optically render and displace a perspective in space. Although designed to reproduce the faculties of the human eye, the camera and the process of displacing the captured image was found to possess unique faculties and constraints.

Structuralist film from the 60's and 70's addressed the faculties of the movie camera in a way that asserted strongly the implications and conditions of representation via the particular medium. Many of these films address the possibilities of movement in space through the device of the movie camera. They draw attention to the moment of viewing as well as the process of creating the film (shooting and editing). They propose new relationships to space generally.

Ernie Gehr's 1970 film, *Serene Velocity* tests the basic faculties of the camera and lens to render depth. Gehr positions the camera at a fixed point aimed down a long stark hallway.

Ernie Gehr, *Serene Velocity,* 1970

Using a variable zoom lens, he alternately zooms in and out in ever increasing depths, shooting five frames at each, until the maximum and minimum depths of the lens were achieved. His presentation is vertiginous and rapid. Although the camera maintains a fixed point in space, the hallway appears to ever rapidly approach and recede. The image is confusing, disorienting, and completely alien to our everyday encounters. However the structure of the film is regular and the setting is familiar. The rhythm and regularity begin to draw the viewer into this alternative perceptual system made possible by the mechanics of the particular camera, editing, and projection.

Michael Snow's 1971 film, *La Région Centrale,* extends the capabilities of the camera with a large mechanical arm allowing it to move freely on three axes. Placed on top of a mountain in Quebec, the 180 minute film mechanically scans the severe frozen landscape, spinning and moving with no apparent regard for verticality, revealing no particular point for orientation. Electronic blips in sync with the movement constitute the soundtrack. The result is beautiful and uncanny. One easily accepts the machine as a perceptual prosthesis

Michael Snow, *La Région Centrale,* 1971

Twin Trajectories

April, 2015

The two channel film utilized a track dolly holding two cameras, one facing forward and one backward down the length of the track. The track itself was built in three pieces which could be easily picked up and laid down. In order to run the dolly along the two hundred meter basement corridor of MIT's central building, two assistants carried the rear section of track to the front extending it in front of the approaching dolly.

despite its thoroughly nonhuman movements. Like Gehr's *Serene Velocity*, the viewer is presented with the conditionality of representation by particular media. Film, as a highly mechanized technology, hides behind its immersive effects. Snow pushed the mechanical apparatus of the camera to an extreme degree. This machine and technique for movement is however no more mechanized than the camera alone. In the hyperbolic systematizing and flexing of technique, he points to the inescapable structure of mediation.

Both of these works are more interested in the contingent constructions that their media (film) relies on than in the ideological constructions of the built world. They take the observable world in which their mechanisms exist for granted. However, their approaches have been a vital precedent for my own representations and manipulations of ideological space.

Filming took place on Wednesday, April 29, 2015 at 11:00PM just as the janitorial night shift began. The crew moved from the eastern end working westward during the ten minute shot.

The footage was later manipulated to digitally recreate the effect of the dolly-zoom technique. First made popular by Alfred Hitchcock's *Vertigo*, and often called the "vertigo effect", the process counters camera movement in relationship to an object with an optical zoom. The field of view remains constant while the camera angle expands or contracts. The effect is uncanny and completely foreign to biological optics.

In *Twin Trajectories,* the effect was achieved by magnifying the digital image in relation to the actual movement of the camera in space such that the size of a particular section of the hallway remained fixed within each screen. As a consequence of the digital zoom, the quality of the image decreased, becomes extremely poor. The texture of the movement, little bumps unnoticeable at full resolution, became increasingly noticeable respective to decreasing image quality.

Roadgeeks

Much of my interest in movement was born as I stumbled upon a community of people with a deep interest in roads. Roadgeeks are those interested in the documentation, discussion of, writing about, and filming of the traversal of roads. They occupy expansive forums across the internet discussing the finer details of road sign usage and ongoing construction projects. Roadgeeks are provincially divided by the constraints of language. This is inevitable and makes locating the extents of the hobby worldwide very difficult. In Japan, the creation of road videos, a primary expression of roadgeeking, is called "Shasai Douga" (車載動画). The activity of recording and sharing these videos has been made possible by the internet. The activity predates YouTube. However the massive video sharing site has greatly aided this activity.

Sound volume was set inverse to the quality of the image such that the higher the visual fidelity, the lower the sound until, at full resolution, the image became completely silent. Both camera perspectives, with their associated audio tracks, were synchronized and displayed on two four by six foot screens facing each other. Corresponding sound emitted from the direction of the image.

This work was very much an investigation into the apparatus of the camera in the experience of space. I wanted to know how the particular attributes of video and this track dolly could be used to represent movement differently. I used the fidelity of the two facing images to describe movement and location in space.

The two screens were placed to mimic the spatial configuration of the room, despite an altered mode of rendered movement. Doing so was a recognition of the importance of the viewing situation. The screens were built from square metal tubing and wood. In the of building of these structures, I wanted to affirm of the inevitability of the construct, allowing myself to revel in its plasticity of materiality.

As a hobby, roadgeeks maintain an amateur attitude. Theirs is a purity of irrational interest unrelated to money or utility. The idiosyncrasies of the roadgeek, and specifically the producers of shasai douga, are magnified by the massive amount material archived. Over a thousand videos have been uploaded by youtuber Seirankai alone whose stated mission is to record videos of the roads in his prefecture of Okayama. These videos, like many others, are completely understated and insufficiently explained. If I did not know better, I would be led to believe that Okayama was entirely made of mountains.

Mountains of data are collected under the premise of pure interest. These collective actions must however be driven by sophisticated desires and intents, if subconscious. Is it the speed, the kinesthetics, the sublime vistas, the mountaining of documentation itself? I found
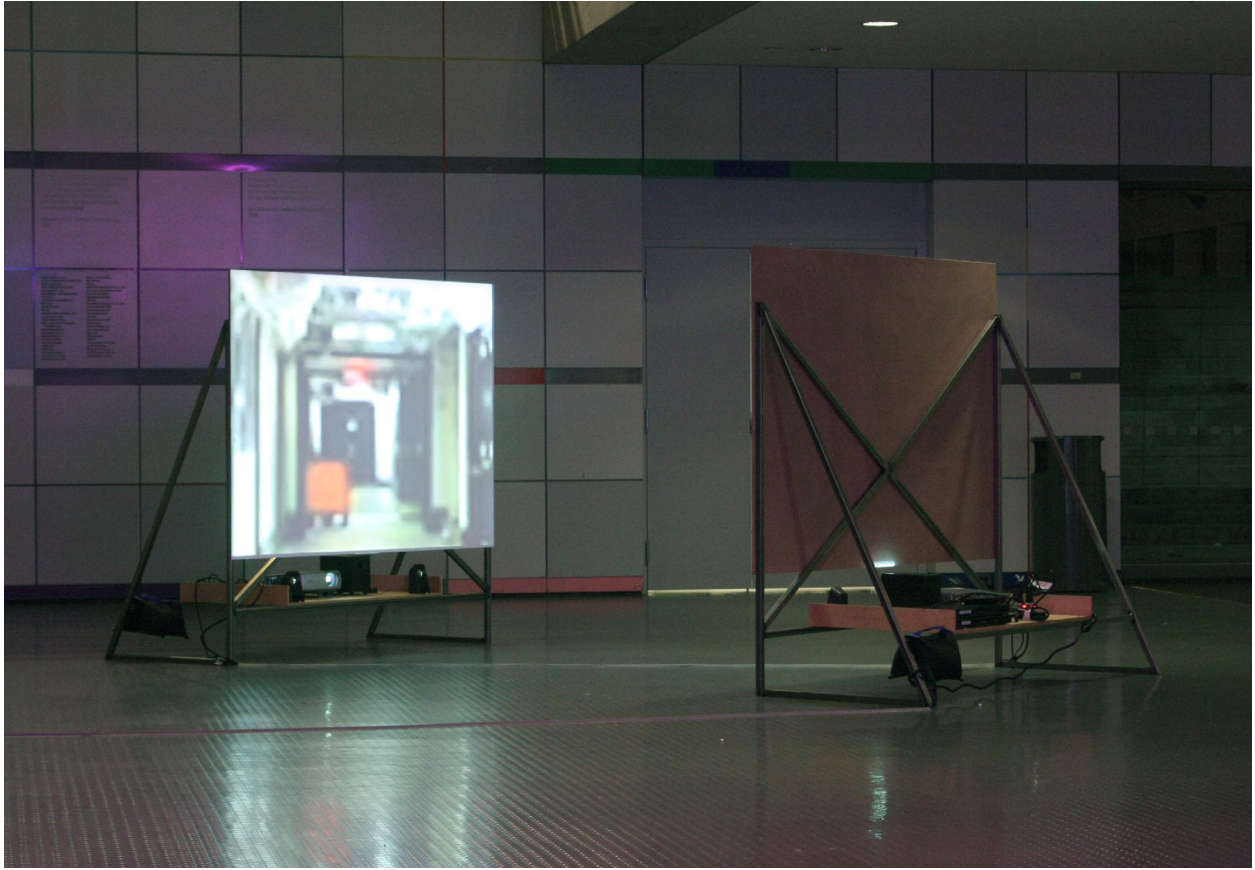
Installation view,
Twin Trajectories,
Bjorn Sparrman

Stills from
Twin Trajectories,
Bjorn Sparrman

myself first drawn to these videos by their movement, hypnotized. I find this to be the strongest reason for their creation. However, discussion of this effect as a driving force behind roadgeeking has yet to be found.

Questions regarding roadgeeking catalyzed my extended study of movement, especially on the scale of the city and landscape. It also provides a form for many of my own works. I am impressed by the apparent detachment from normative reasons for driving. They drive for the pleasure and have created a new form of navigating and recording the landscape in the pure appreciation of the hobby. Inadvertently, they have become something like the heirs to the projects of the Situationist International. Like the SI they have developed a technique for navigating the built environment outside the norms of society. Roadgeeks are perhaps even more elegant than the SI in this. They do not employ a heavy handed cartographic overlay to escape Debord's "society of the spectacle".

There is a lack of self consciousness in the roadgeeking community regarding the style of documentation despite a largely homogeneous form. Fixed dashboard cameras point out the front of their cars. There is never talking or evidence of the driver or passengers. Most contain no music. Subtitles or inter-text give road numbers or other direction-al information. There is an austerity in this style. From within the innumerable videos uploaded, shared but unstated impulses emerge. In some examples, the speed of the video is doubled. If there is music, it usually fast techno. These hints at a desire for the sensation of movement, a kinesthetic immersion, being rocked back and forth by what are mostly scenic or dynamically undulating paths.

Daydreaming Wormholes

Gaston Bachelard presents what we might describe as an opposite approach. Instead devices or strategies for undermining the built environment, the repetition of inhabiting

Still from *Seirankai,* 2012

Still from *Southern Roadgeek,* 2010

Still from *Bart Wesdorp*, unusual roadgeek video taken from motorcycle, 2012

spaces and the wellbeing that the shelter of home provides enables moments of day-dreaming. He describes a feedback loop where daydreams in familiar places concentrate on that exact location as their subject. Future daydreams are then more likely to feature that space.[40] Through his theory of daydreams, Bachelard describes a sort of wormhole that can emerge from the internalization of familiar places. While the Situationists may have been prone to describe repetition and internalization of experience as a dead end, Bachelard offers an alternative.

The house that Bachelard describes contains objects and forms that become ingrained in us, trigger memories, and set us off daydream-ing. This oneiric capacity of the house is very much tied up in our childhoods and our first homes such that their briefest mention can induce an "oneiric situation".[41] Describing the act of retuning to his childhood home he writes,

40   Gaston Bachelard, *The Poetics of Space,* trans. Maria Jolas (Boston: Beacon Press, 1994), 6.

41   Ibid., 13.

"We would push the door that creaks with the same gesture, we would find our way in the dark to the distant attic. The feel of the tiniest latch has remained in our hands."[42]

The memory and repetition of space becomes ingrained in us. As Gibson suggested, we have thoroughly created a conceptual space in our minds that helps us navigate the visual world. Bachelard wants us to understand a deeper dimension of this mental memory space: that this space does not have to completely confine us, that the evenly spaced ideological worlds that we construct in our minds have the possibility to tear from the middle into open ended fantasies.

These daydreams are created within the architectures of everyday and remembered life. They do not make use of devices or external strategies. The house itself is the framework that allows the oneiric experience. It is also its subject and is thus internal to the experience. However, external devices can also help induce these daydreams.

Ethnologists Billy Ehn and Orvar Löfgren's *The Secret World of Doing Nothing* sets out to develop an "ethnography of non-events". They develop a method for searching out and making documentation of the moments when people are supposedly "doing nothing", waiting in line, performing daily chores, commuting, and performing all of the other tasks which, due to their complete integration into our daily lives, go unnoticed. They understand that the integral nature of the "secret world of the infra-ordinary" makes it all the more influential. Ehn and Löfgren recognize and that the activities, daydreams, habits, and games we play in the interstices of deliberate action are culturally driven.[43]

"Daydreaming may be an escape from the demanding realities or boring routines into a more rewarding fantasy world. This it is also a way to mold everyday life,

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42   Ibid., 15.

43   Billy Ehn and Orvar Löfgren, *The Secret World of Doing Nothing* (Berkeley: University of California Press, 2010), 7.

The Vertical Vantage

December, 2015

The Vertical Vantage began with found footage from one of thousands of dashboard cam videos online. I attempted to recreate the vertical perspective from the moving car, the view looking up at the sky. To do so, I recorded many hours out of the sunroof of a car while driving around rural Massachusetts. I attempted to get as many possible combinations of turns and foliages. While

fabricate biographies, plan and rehearse future action and recapitulate past events."[44]

Ehn and Löfgren identify the power of movement in space toward the nurturing of daydreams in much the same way as Bachelard. They extend this to the larger everyday trajectories of railroads, cars, and airplanes. In particular they describe how, during the repetitive commute by car, the landscape, with its repeated scenery, "becomes part of your reveries".[45] They recognize the trance-like flow of driving as an aid to daydreaming. This attitude is very closely described in Bachelard's *The Poetics of Space* with a quote from Marceline Desbordes-Valmore.

"'And what a dynamic, handsome object is a path! How precise the familiar hill. Paths remain for our muscular consciousness! A poet has expressed all this dynamism in one single line: O, mes chemins et leur cadence Jean Caubère, Dèserts (Oh, my roads and their cadence.)'"[46]

For Ehn and Löfgren, the car is a tool for daydreaming that relies on the sensuality

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44   Ibid., 127.

45   Ibid., 145.

46   Gaston Bachelard, *The Poetics of Space*,11.

looking up, movement's points of reference function very differently. On this cloudless day, only the trees and power lines marked velocity and trajectory. This footage was pieced together and reoriented as necessary to speculatively recreate the view looking up from the car in the online video.

The original footage comes from the prolific youtuber, Seirankai. It was arbitrarily chosen as one of hundreds uploaded by Seirankai alone. All of these videos online, including those by every other roadgeek are shot with the same perspective. I wanted to recreate a view that could have but never was documented in these online videos. I then wanted to ask, how does our relationship to this trajectory change if we look in another direction? As a child I spent hours staring out the back window of the family car on cross country trips. The landscape was etched into my mind by this repetition. Yet these aberrant views are missing from normative representations of the road.

The reconstructed video was projected on a seven by four feet hanging screen above a raised bed with a black futon and white pillows. The original video was shown on a small computer monitor adjacent to the bed. The white pillows were colored by the blue of the sky while the trees moved by in a blur.

of movement along roads.[47] If this is the case, that the rhythms of roads nurture the emergence of dreams that break open our relationships to everyday life into fantasy worlds, we can perhaps see the underlying motivations of roadgeeks. We can also see the hubris of the Situationists whom, in their attempt to systematize and critique the urban experience as a controlling psychological environment, overlook the potential of emergent fantasies and free thought within normative internalizations and repetitions of ideological trajectories.

Each episode of the animated adaption of Tomihiko Morimi's novel, *Yojōhan Shinwa Taikei (The Tatami Galaxy),* follows an unnamed student as he pursues a perfect "rose colored" college life. The clock rewinds at the end of each episode, restarting his college life at the beginning of the next. He believes that the fate of his college life rests in his choice of extracurricular club where he will surely fall in love with a "raven haired maiden".

Instead he is always befriended by Ozu, a mischievous, mysterious, and misanthropic double agent with "a face of ill portent".[48] Together they spend their time thwarting others' love and self interested lives. The protagonist be-

47   Billy Ehn and Orvar Löfgren, *The Secret World of Doing Nothing,* 146.

48   "Tennis Circle 'Cupid,'" *The Tatami Galaxy*, first broadcast April 22, 2010 by Noitamina, directed by Masaaki Yuasa and written by Makoto Ueda.
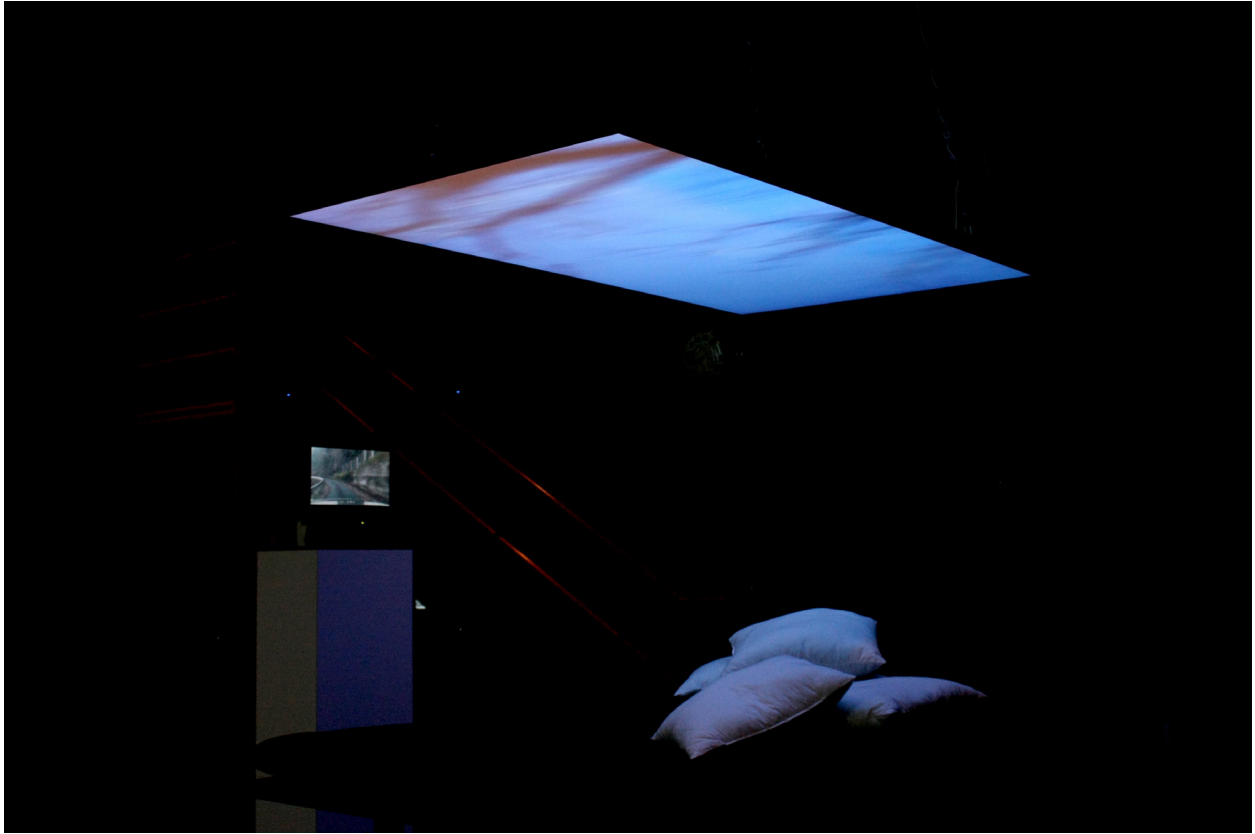
Installation views,
The Vertical Vantage, Bjorn Sparrman
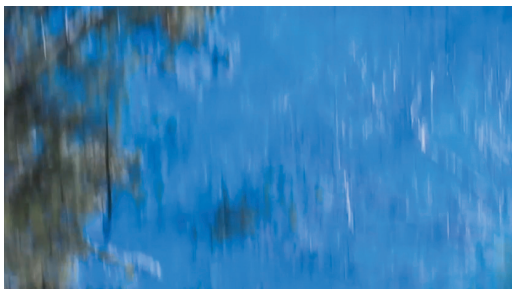
Stills from
The Vertical Vantage,
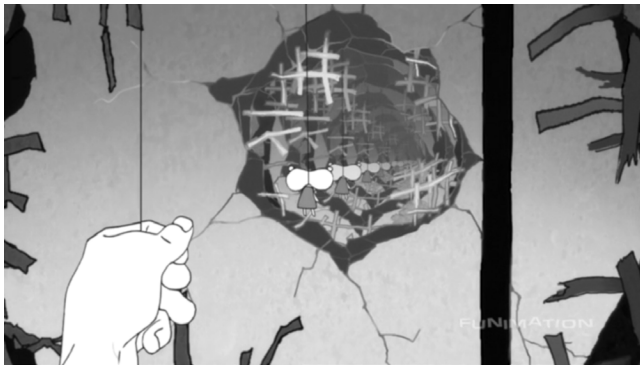Bjorn Sparrman

friends and falls for Akashi, an strong willed but private engineering student the year below him. He repeatedly promised to take her to "Cat Ramen", an itinerant food cart rumored to use actual cats in the broth. He continually fails to fulfill this promise. In each episode as he stumbles through the streets exhausted and dissatisfied, he runs into an haggard old fortune teller who advises him.

> "(An) opportunity is always dangling in front of your eyes. You must grab this opportunity and act on it. … And if you do not! You will walk this life as now, ever unchanging."

Every time she charges him more and more money for the same piece of advice, growing ever more impatient, terse, and direct with him. In the final episodes, he chooses to become a hermit, hardly leaving his perfectly square boarding house room. He awakes one day to discover that he is stuck in an endless matrix of copies of his room, each from an alternate college life. He makes a grand journey from one room to the next, smashing through the walls surviving on fish patties and castella sponge cake. As he rummages through the objects of his alternate realities, he discovers evidence of joyous (if mischievous) lives and the true friendship of Ozu.

He is only freed from this space when he finally takes the constantly repeated advice of the old fortune teller, grasping the opportunity that had always been in-front of his eyes. The opportunity turned out to be a small a small

plush toy owned by Akashi that she had lost. He had found it in his laundry and hung it from his light fixture pull-string in each of his countless alternate lives. The endless matrix splits open in an eruption of moths, whereby he is freed to get Cat-Ramen with Akashi.

This is very much like Bachelard's emergent descriptions of space. In this case, repetition points to the most important things. It is constantly screaming to the protagonist. A wormhole opens up from the object most repeated. It is only the protagonist's stubbornness and force of will that mystically traps him in this strange universe and keeps him from realizing his desires.

This suggests that the spaces in which we move have just as much power to ensnare us as free us. The story describes two kinds of effort. There is a brute force, which I believe to be an ideological force, predetermined, impatient, and always dissatisfied. There is also a flexible free force that takes opportunities and appreciates things as they arrive. The second relies on something like Lynch's "infinitely flexible rubber sheet" or the attitude of childhood as presented by Bachelard.

Still from *The Tatami Galaxy, 2010*
The protagonist finally grasps the opportunity dangling in from of his eyes.

Returning to Tarkovsky's film *Stalker*, we encounter an individual who has found escape from the inner demands of ideology. He is perhaps the product of natural selection. We hear of how the sentient ever changing zone efficiently disposes of the careless. The stalker is not a careful man, he is clumsy and emotional. Yet his lack of assumptions, his naivety, and resistance to concrete conception of space becomes his saving grace.

Tarkovsky describes a place where the stakes of movement, the relationship between one's assumptions of a space and the reality therein, are that of life and death. The conditions of this landscape are perhaps not all that different than those of our own world. They both pose constraints on the wills of their inhabitants. In the film, the stakes are merely raised to the extreme. The stalker does not navigate a rational space. In some ways, the zone is the cognitive composite matrix of ideas and objects made entirely physical. In this instance, however, the composition of physical and ideological elements, in this case the opinions and sensitivities of the zone, happens in an external environment instead of in the mind of the observer. It makes sense that in this constitution, the land must have sentience. Spatial ideological conceptual space is only found in conscious beings. When the environment itself takes on these qualities, the visitor's aims have the possibility to clash with deadly force.

Still from *Stalker,* 1979

There is no pure split between the two approaches to escaping the hegemony of built space that I have described. The Situationists were surely lulled and hypnotized into daydreams. The car is allowed to be just as much an emancipatory device as a apparatus of capitalist society. All of these examples lead us to a better understanding of our relationships to contingent environments and ask us how we can then function within these parameters. How much do we rely on the perceived phenomenon that ground us? I am left wondering what we can be when the structures that bind us melt away. Could I become flexible and naïve enough to enter the zone?

Conclusions

Screens want to provide us a window to another reality. I am complicit in this tendency. I want to supply viewers this window. When we discuss representations of space, the focus cannot be on this screen threshold alone. Our faculties of vision, our ideologies, and constructions of real space mediate and organize our visual worlds with similar magnitude. Screens and other optical devices are scapegoated for the effects of more comprehensive systems of mediation that emerge from idologies.

I described a composite perceptual matrix which, constituted by pure ideas and perceived objects, cognitively guides us simultaneously through beliefs and spaces. It is within this mental conceptual space where external things receive their final mediation. It is the space in which we make sense of things together and assign them meaning within larger ideologies.

This study has been wrapped around certain anxieties. I ask, who are we when displaced in space? If our beliefs are grounded by internalized rhythms and patterns of movement in space, could the performance of these maintain meaning without an external physical framework? It seems that to a certain extent this conceptual mental space is able to maintain meaning when the individual is displaced. However if so, logical and spatial abscess will eventually open in this matrix.

Built environments have the capacity to guide the movements and, by extension, beliefs of their ambulators. We've looked at various attempts to resist these trends. The success of these attempts comes down to the mastery of the self: the ways in which we organize (or

don't) experiences, retinal clues, and rhythms. We become captive to spaces when we begin to make comprehensive sense and ideologies of them. We can survive displacement of spacial frameworks. However the crystallization of ideology directly counters this possibility. I want to be certain that I can exist without a guiding matrix, without a comprehensive understanding, to live calmly with doubt. I want to find a non-ideological way of life.

Many of the artworks presented here focus on identifying the faculties of mediated experiences of space. They address the nature of the spaces in which they were created and in which they are re-presented. My approach has been mechanical in the sense that the works function because of the effort put into their construction. The set-up of these works mark their activity as mediated with emphatic organization. We know that we are looking at a representation of a space. I hope to hypnotize and induce oneiric experiences without hiding the mediating mechanisms.

Two Speculative Responses

I see each of these projects as tackling minute questions toward a larger project. Collectively they provide what I hope will be a suitable vocabulary of techniques for future experiments. Movements through space could be decontextualized to places of uncanny similarity. I hypothesize that the ideological aura or quality of a trajectory in space could be described within the kinesthetic quality alone which could then be described geometrically. With the use of computer vision, a system could be developed that locates geometrically similar trajectories in space. From a known path, a twin could be located. Traversing these doppelgängers, I presume that they will share an essential idea-organizing capability. If we are given the space or framework to perform our internalized habits elsewhere, we will maintain its experiential aura The ideological grounding could be preserved in the pure data of the movement.

Like my previous work, *Dead Ringers*, which saw plastic measuring buckets recreated in clay, the accuracy of the duplication could be measured statistically. In recreating a trajectory through space, the accuracy of the shape finding function could be measured. This geometric accuracy could also describe the accuracy of experience and ideology. This technique could give us a false sense of understanding and grip on our activities and internalized rhythms.

In the first chapter of *The Perception of the Visual World,* as he explains the implications of his studies of perception, James Gibson describes the nature of existence without spatial reference.

> "The hypothetical man at the center of a sphere of pure air is even further instructive. Although he would presumably have no impression of far or near, and no sense of his surroundings as being flat like a picture of modeled like a sculpture, that is not all he would lack. Almost certainly he would have no impression of up and down. Since the pull of gravity on his body and the resistance of his legs against the substratum are wholly lacking, he would have no equilibrium and could not maintain a posture. He would feel as if he were floating. Although he could look toward or away from his feet and could see his right hand and his left hand, these acts would probably have lost much of their normal meanings of up and down, right and left, and he would experience a profound complete disorientation. He could thrash about but could not change his position in phenomenal space, and in fact he would have no position in a visible environment."[49]

For Gibson's purposes, this situation represents the worst possible, where a pilot's existence (life or death) is ordained by their orientation and location in space. He goes on to question whether this individual could, if lacking any distinguishable visual references, perceive a theoretical geometric space around them. In this analysis he may have reached the limits of ideology. The experiments in this thesis have concerned themselves with displacing trajectories or other representations of space from one location or perceptual agenda to another. However, there has always been a perceived external geometric space in which to map out internal composite matrices of beliefs and objects. Without a perceiv-

49   James J. Gibson, *The Perception of the Visual World,* 5.

able Euclidean space, we may be stuck.

These two responses represent the two extreme tendencies in this thesis. First, the desire of exactitude and objectivity over the elements and materials of corporeal spatialization. The second reveals a universal fear: that we are completely contingent beings, and that some truths might not be universal. I must leave the discussion here as I cannot hope to resolve this tension.

Opposite page, Installation view,
Twin Trajectories, Bjorn Sparrman
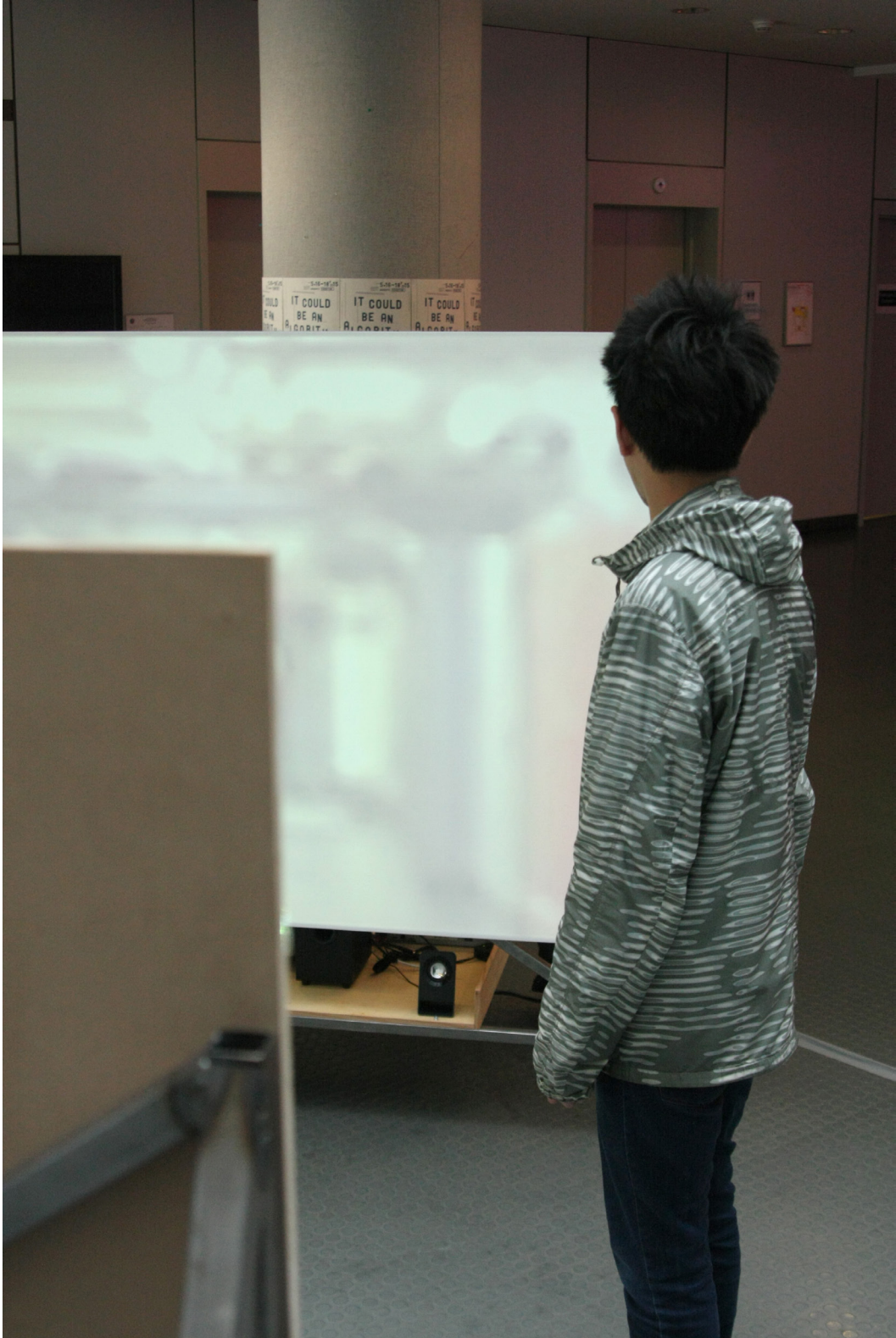
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Image Attributes

11.   Andrei Tarkovsky. *Stalker*. Film still. Mosfilm. 1979.

18.   *Bucket-Shaped Mizusashi said to have belonged to Takeno Jō-ō*. Photo. In *Shigaraki Potters' Valley*. Bangkok: Orchid Press, 2001.

19.   *Tea Caddy in Katatsuki Shape*. Photo. In *Shigaraki Potters' Valley*. Bangkok: Orchid Press, 2001.

21.   *Japanese Shigaraki Tanuki Incense Burner*. Photo. Mingei Arts. Accessed May 1, 2016. <mingeiarts. com>

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23.   *VASE*. Photo. Metropolitan Museum of Art - Images for Academic Publishing, Accessed May 1, 2016. artstor.org

25.   *Untitled (Grayson Perry)*. Photo. PAUL STUART. Accessed May, 2016. <http://paulstuart.co.uk/portfolio/grayson-perry/>

27.   Ai Weiwei. *Dust to Dust*. Photo. Aaron Igler, and Matt Suib. *In Ai Weiwei: Dropping the Urn: Ceramic Works, 5000 BCE - 2010 CE*. Glenside: Arcadia University Art Gallery, 2010.

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31.   Bjorn Sparrman. *Dead Ringers, Measuring Buckets*. Photo. March, 2013.

32.   Bjorn Sparrman. *Dead Ringers, Adobe*. Photo. March, 2013.

34.   Bjorn Sparrman. *Dead Ringers, Paddle*. Photo. March, 2013.

35.   Bjorn Sparrman. *Dead Ringers, Paddle*. Photo. March, 2013.

36.   Bjorn Sparrman. *Dead Ringers, Paddle*. Photo. March, 2013.

38.   Bjorn Sparrman. *The Million Line Matrix*. Illustration. 2015.

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44.   Naum Gabo, *Kinetic Construction (Standing Wave)*. Photo. In *Central European Avant_Gardes: Exchanges and Transformation, 1910-1930*. Cambridge: The MIT Press, 2002.

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47.   Bjorn Sparrman. *Study #3, ELMO-MIT, Dimitri Hadzi*. Video stills. March, 2014.

48.   Bjorn Sparrman. *Study #1, Birth of the Muses, Jacques Lipchitz*. Video still. March, 2014.

49.   Bjorn Sparrman. *Study #5, TV Man or Five-Piece Cube with Strange Hole, David Bakalar*. Video still. March, 2014.

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52.   Bjorn Sparrman. *Wander Piece*. Video stills. May, 2014.

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69.   Bjorn Sparrman. *Mirror*. Photo. April, 2016.

70.   Bjorn Sparrman. *Mirror*. Photo. April, 2016.

72.   Ernie Gehr. *Serene Velocity*. Film still. 1970.

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77.   Bjorn Sparrman. *Twin Trajectories*. Photo. May, 2015.

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84.   Bjorn Sparrman. *The Vertical Vantage*. Video stills. December, 2015.

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