Unreal City:

Doug Rickard's Google Street View Photography

Fig 1. Doug Rickard, *#34.546147, Helena-West Helena, Ar. 2008*, 2010.

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Senior thesis submitted in partial fulfillment of the requirements for the degree of Bachelor of Arts in the Department of History of Art and Architecture at Brown University

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Providence, Rhode Island

2020

ACKNOWLEDGEMENTS

Above all, I would like to thank my advisor—and friend and mentor—Lindsay Caplan. She has reinvigorated in me a love for art history, not as a marginal or aesthetically concerned field, but as a central and rigorous sieve through which to drain the political and digital worlds. She has introduced me to my favorite (and least favorite) artists, and, most importantly, to a new way of seeing.

My parents have also been central to my pursuit of art history and urban studies. I care deeply about many of the justice and equity issues I address in this thesis because they raised me in West Philadelphia and sent me to public schools my whole life. And I love the history of design, photography, and architecture—the core strands of this work—because I grew up with art and artists.

I am also indebted to Dietrich Neumann, who laid the foundation of my study of architectural history, Sandy Zipp, who gave me an urban and cultural history lens through which to see this project, Allison Pappas, who assisted with much of my research on the FSA and has served as a wonderful role model. Thanks as well to Jeffery Moser, Holly Shaffer, Jon Duval, and the entire History of Art and Architecture department, which has been a home for me these past four years.

I am incredibly lucky to have close friends who double as a workshop group, on the *College Hill Independent* and off. To Will Weatherly, my life-long editor; Julia Rock, my political compass; Isabelle Rea, who produces fun out of thin air; Michael Mills, my moral compass; Harry August, my sidekick; Olivia Kan Sperling, coder and critic; Izzi Olive and Tara Sharma, the genius mothers of my heart; and C. Turner, who helps me understand.

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Fig 2. Doug Rickard, *#29.942566, New Orleans, La.* 2008, 2009.

INTRODUCTION:
A New American Picture, An Old American Problem

> "I spent two years, thousands of hours in a dark room, navigating massive amounts of our country."
>
> — Doug Rickard, 2012

Doug Rickard stands onstage at the Annenberg Space for Photography, at the foot of Beverly Hills on Los Angeles's wealthy Westside, in a complex that's nearly identical to the rest of the city's corporate architectural landscape, flipping through images of American urban poverty. Despite a packed and attentive audience, Rickard seems to be alone with his images. He shows a group of young men walking through a monochromatic grey cemetery in New Orleans (Figure 1), a child-sized plastic car flipped over outside of a tract house in Arkansas (Figure 2), a man in tattered pants walking through an alleyway in Memphis, the letters *RIP* graffitied on the wall behind him (Figure 3).[1]

Rickard's best-known project, *A New American Picture*, is comprised of scenes of the poorest neighborhoods in the United States, captured by Google, displayed on a computer screen, re-photographed and printed for display in a gallery like the Annenberg. The images he re-photographs are early iterations of Google's world-imaging project, Street View, which since 2007 has sent out roving cars mounted with panoramic cameras to photograph every street in the world (Figure 4).[2] Through Google Street View, users can, like visitors to a nineteenth-century panorama, experience a place they have never been before. Because *A New American Picture* reproduces the earliest images taken on Google Street View, they are blurry, low-resolution representations of life, not Google's more recent high-definition images, which, of course, still cannot replicate the real thing.

In the wake of the 2008 financial crisis, Rickard's work became a popular chronicle of the economic devastation wrought in those years—and much earlier—alongside the inverse explosion of tech capital. In 2011, the Museum of Modern Art featured stills from *A New American Picture* in its *New Photography 2011* show. And in 2013, Teju Cole wrote, "'A New American Picture' is a look at the collapse of certain cities: Detroit, Memphis, Oakland. The gaunt

1 Doug Rickard, "A New American Picture," April 25, 2012, Annenberg Space for Photography, Los Angeles, recorded lecture, 63:46, https://www.annenbergphotospace.org/video/doug-rickard-new-american-picture/.

2 Siva Viadhyanathan, *The Googlization of Everything (And Why We Should Worry)* (Berkeley: University of California Press, 2011), 98.

Fig 3. Doug Rickard, *#35.106913, Memphis, TN* (2009), 2010.

sun-stunned figures in these streets inhabit noonday nightmares, captured both by Google's car-mounted camera and by the brutal reality of American capitalism."[3] Cole's analysis of Rickard's work points to the central tension I explore in this project: How does the sleek tool of big tech, which visualizes the built environment, relate to the urban abjection that seems to be its opposite? Rickard's work, I will argue, figures forth the deeply intertwined history of these seemingly separate trends: techno-capitalist tools for seeing the world and processes of urban planning and disinvestment.

The tension between images and reality, between structures of power and dispossession, is precisely what makes Rickard's work resonant. It also makes it stand out in a growing field of photography appropriated from the internet. Indeed, while Rickard was a pioneer when he began using Google Street View as source material for his photographic practice in 2009, he has since been joined by dozens of other artists working with the tool. Google Street View photographers-tend to follow a standard formula. They pluck street scenes from the almost infinite image database; the reproduction of their selections for an audience, then, constitutes their artistic intervention. Emilio Vavarella shows the faces of Street View car drivers that accidentally end up on camera.[4] Paolo Cirio prints figures from Street View onto wheatpastes that

3 Teju Cole, "Google's Macchia," in *Known and Strange Things* (New York: Random House, 2016), 182. First published in *The New Inquiry*, 2013.

4 Emilio Vavarella, "The Driver and the Cameras," Emilio Vavarella artist website, last modified 2012, http://emiliovavarella.com/archive/google-trilogy/driver-and-cameras/.

Fig. 4. Google Street View car.

Fig. 5. Jon Rafman, *Untitled,* 2015.

he re-inserts into the urban environment where they were originally photographed.[5] Michael Wolf and Jon Rafman each zoom in on moments of impropriety in the public sphere.[6] In Rafman's work, sex workers stand on the side of the road; a tiger strolls through a strip mall parking lot; a woman is dragged by her dyed red hair across a parking lot against the backdrop of a post-Soviet housing block (Figure 5). The moments these photographers select

5 Paolo Cirio, "Street Ghosts," Paolo Cirio artist website, last modified 2017, https://www.paolocirio.net/work/street-ghosts/.

6 Jon Rafman, "The Nine Eyes of Google Street View," Jon Rafman project website, last modified 2018, https://9-eyes.com/; Michael Wolf, *A Series of Unfortunate Events* (Berlin: Peperoni Books, 2010).

(and their intervention does, like all photographers who appropriate images from the internet, come in the act of selecting) lay bare the seemingly banal, perhaps even fun, tool as an agent of unfeeling surveillance.

Rickard's comparatively narrow geographic scope indicates that his digital wanderings are not aimless, setting him apart from the genre at large. As he said in the Annenberg talk, "I was greatly curious about what's Selma like right now. What's Birmingham like? What's Detroit like? What's Camden like? Locales that I had learned about that were filled with tragedy."[7] This statement is as unfortunate as it is revealing, and within it lies the crux of *A New American Picture*: Rickard begins with a mental image of poverty and works backward to reproduce those images with Google's camera. By nature of the tool he uses, the images Rickard creates are defined by moments of abjection and structural racism, never joy; we see life in the street, never in the home; faces are, by privacy mandate, always blurred. These are fuzzy approximations of life in America's poorest neighborhoods, which we can never quite see clearly.

The value of Rickard's photographs, then, is not that they offer some humanizing or true portrait of life in urban poverty, despite the critics who, as we will see, would like to understand Rickard in the lineage of Walker Evans and other Farm Security Administration photographers. Rather, legible in Rickard's images—and perhaps *illegible* in any given Google Street View image that appears on our personal computers—is the relationship between the corporate imaging tool and the neoliberal urban planning that began to take hold in the 1970s and that continues to regulate the American built environment today. One need look no further than Rickard's photo, *#82.948842, Detroit, MI [2009]*, to see the visual consonance be-tween an imaging technology that degrades its subjects and the physical degradation of those subjects' lived environments. In that image, three men creep across the city's MLK Boulevard, six lanes of traffic between them and the other side of the road, their bodies smoothed by Google's camera into thin outlines like Giacometti sculptures (Figure 6).[8] Google has made the figures unidentifiable, suppressing their personhood in a gesture towards privacy, while policy and planning have made this place nearly unlivable —its street are built for cars, but its citizens don't have them. An anti-human tool for visualizing urban life becomes readable as such when it depicts anti-human urban planning.

As we trace the history of urban street photography to today's virtual worlding, we will follow alongside it the trends in American urban planning and development of the last century. It is a story that takes us, in Chapter One, to the early intersections of speculative development, photography, and corporate power in the American West in the nineteenth century; in Chapter Two, to the birth of cybernetics in the 1960s and '70s, when urban planners, military contractors, and computer developers alike shared tools and ideas about systems; and, in

7 Rickard, "A New American Picture," Annenberg Space for Photography.

8 All of the photographs in *A New American Picture* are titled with long numeric descriptors, which indicate their GPS coordinates on Google Maps.

Chapters Three and Four, to the dot-com bubble and the birth of big tech in the 1990s and early aughts. It is a story that *A New American Picture* illustrates well.

By using a photography project to trace cultural and political history, I hope to underscore—much more broadly—the constructive power of the image. As we will see, the imaging technology appropriated in *A New American Picture* does not just reflect the history of urban dispossession; it determined and legitimated that history. Rickard's large-format prints, displayed at MoMA and the like, stop a digital stream of images to halting effect.[9] Wrenched from the web and placed on the white wall, Rickard's work reveals the intersection of these two strands of history, which so often remain separate. The project that follows, like Rickard's work, will aim to reunite them.

fig. 6.Doug Rickard, *#82.948842, Detroit, MI. 2009*, 2010

9 Dan Lees, "New Photography 2011," Museum of Modern Art, September 28, 2011–January 16, 2012, https://www.moma.org/interactives/exhibitions/2011/newphotography/index.html.

CHAPTER 1:

Resettlement/Dispossession
Two Paradigms for American Photography

"Liberal documentary blames neither the victims nor their willful oppressors."

— Martha Rosler

A New American Picture reconciles two histories of photography. On one hand, by nature of its geography and its subjects, the project fits into a tradition of social documentary photography that seeks to garner sympathy for poor Americans and, often, funding for welfare. On the other, by nature of Rickard's use of Google Street View, the project is aligned with the practice of survey photography that works to appraise land or naturalize displacement. At stake in Rickard's photographs, then, is human autonomy. If Google removes people through face-blurring and irreverent, automated photography, Rickard re-inserts them when he pauses on moments of vulnerability. To understand the photographic opposition that Rickard exploits, between humanizing portraiture and mechanized survey, we must examine the historical context for these respective traditions.

After Walker Evans

Curators and critics frequently position *A New American Picture* in the lineage of the Farm Security Administration's federally commissioned photographs of American poverty during the Great Depression. The FSA photography project sought, broadly speaking, to "introduce Americans to Americans."[10] As Cara Finnegan explains in *Picturing Poverty* (2003), the FSA disseminated its photographs in public exhibitions and popular magazines such as *Look* and *Life*. Finnegan's analysis of dissemination makes clear that the FSA commissioned images of poverty to be consumed by the middle and upper classes. As such, the FSA photographs—despite emblematizing the documentary genre—were never intended to be neutral depictions of reality. The FSA, under director Roy Stryker, used a clear strategy to produce a palatable argument: visualize rural poverty and, in turn, secure congressional funding for its amelioration. Supported by government per diems, the photographers—Dorothea Lange, Walker Evans, Ben Shahn, Arthur Rothstein, and others—worked independently in the field, sending their images back to Washington bureaucrats, namely Stryker, who then made the final decisions

10 Cara A. Finnegan, Picturing Poverty: Print Culture and FSA Photographs (Washington, D.C.: Smithsonian Institution Press, 2003), 19.

regarding which images to publish as part of the public photographic education program. While the nature of the relationship between the federal government as client and the FSA photographers as contract employees was never entirely placid—most disagreements erupted over whether the images should be considered art or historical documents—the goals of the project remained, for the most part, steadfast. A commitment to garnering public sympathy by visualizing the most intimate living conditions of displaced migrant workers, sharecroppers, single mothers, day laborers, downtrodden businessmen, and many other Americans plagued by housing instability, environmental volatility, and the economic recession united the work of disparate photographers with their own distinct styles.[11]

Contemporary commentators have most frequently compared Rickard's work to that of Walker Evans. As critic Geoff Dyer wrote in *The Believer* in 2012, *A New American Picture* "contains obvious echoes of photographs made by [Walker] Evans under the auspices of the Farm Security Administration in the 1930s, with the vernacular signage—American Collision, Super Fair—serving a similarly choric function."[12] Critics in *The Guardian*, *The British Journal of Photography*, *Design Observer*, and *The Sunday Times Magazine*, alongside Daniel Palmer, a historian of photography, and Erin O'Toole, a curator of photography at SFMOMA, have identified Evans as Rickard's clearest predecessor.[13] The now widespread comparison originated with curator David Campany, who aligned Rickard's work with Evans's on a number of occasions early in Rickard's career. In a 2010 exhibition at Le Bal gallery in Paris titled *ANONYMES: L'Amérique sans Nom*, Campany and his collaborator, Diane Dufour, showcased works from *A New American Picture* alongside the work of Walker Evans and other American street photographers (Figure 7). The show claimed to trace back to Evans the work of more recent photographers producing urban portraits of their hometowns (such as Anthony Hernandez, who photographed public transit riders in downtown Los Angeles in the 1970s), intimate interior shots of workers at their desks and families in their homes (Chauncey Hare in his 1978 series *Interior America*), and the more distanced images that populate *A New American Picture*. Despite the obvious discrepancy between Rickard and the other photographers—that unlike Hernandez and Hare, Rickard lacks any personal connection or physical proximity to his subjects and geographies—Campany and Dufour nevertheless united the photographers' subjects under the broad curatorial umbrella "Americans without names." They are aimless but not free, unnamed but typed, anonymous but American.[14]

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11 James C. Curtis and Sheila Grannen, "Let Us Now Appraise Famous Photographs: Walker Evans and Documentary Photography" *Winterthur Portfolio* 15, no. 1 (1980): 1–3.

12 Geoff Dyer, "Street View," *The Believer* 90, June 1, 2012, https://believermag.com/street-view/.

13 In a PBS Newshour broadcast, O'Toole states, "Doug has a similarly social documentary purpose behind this work," referring to Evans. Scott Shafer, "Photographer Puts New Spin on 'Street' Art Using Google Maps" (San Francisco: KQED, October 29, 2012), television newscast, 7 min., 11 sec. For other comparisons of Rickard to Evans: Hermione Hoby, "Google Muse: the new breed of street photographers," *The Guardian*, July 14, 2012; Diane Smyth, "The View from the Streets," *British Journal of Photography*, February 22, 2011; John Foster, "*A New American Picture*: Doug Rickard and Street Photography in the Age of Google," *Design Observer*, January 1, 2012; Brian Appleyard, "They've Been Framed," *The Sunday Times Magazine*, December 11, 2011.

Fig. 7. Janeth Rodriguez-Garcia, Installation Shot of *Anonymes: L'amérique Sans Nom,* Le Bal Gallery, 2010.

By the time Aperture published the *New American Picture* monograph in 2012, Campany had established himself as Rickard's key proponent with the Le Bal show and was therefore the natural choice to write the book's introductory essay. In it, he again described *A New American Picture* as the logical successor to the FSA's work.

> These often feel like places from the past, in which the surveying Street View vehicle would have looked quite outlandish as it glided down the quiet, dusty streets. Citizens stare at it, perhaps with curiosity, perhaps with suspicion.... The pernicious urbanite fantasy that small-town and semi-rural American life belongs to the past goes back a long way. . . . It was there in the 1930s when images made by the photographers of the Farm Security Administration were used in the mass media to position the South and Midwest as a behind-the-times basket case in need of charity.... For those who seek them, there are traces in this book of the rich history of itinerant photographers who have taken the American streetscape as their inspiration and muse. Rickard knows well this history, and my essay begins with a remark made by one of its guiding lights. Walker Evans resisted all artiness of technique in favor of the clear and unforced vernacular document of common life. Careful and inscrutable images may be gathered up as so much data for review. It is in the selection and sequencing that the work really begins. This is where the art is, and the politics too.[15]

14 David Campany, *Anonymes: l'Amérique sans nom: photographie et cinéma* (Göttingen, Germany: Steidl Verlag, 2010).
15 David Campany and Erin O'Toole, *A New American Picture* (New York: Aperture, 2012), 10.

Fig. 8. Walker Evans, *Vicksburg Negroes and shop front. Mississippi*, 1936.

Campany's description is meant to equate Evans with Rickard. There are undoubtedly clear formal and sociological similarities that allow the comparison to persist. Evans, like Google, shot from moving cars, capturing roadside subjects who had little time to respond to the camera's presence; sometimes they did not even see the camera at all (Figure 8). In other works, Evans framed people—usually in some state of exhaustion, boredom, or hardship—against decidedly more optimistic advertisements, such as the men pictured against a Coca-Cola advertisement in Figure 9. Rickard's photographs, of course, draw their imagery from Google's moving car, often with messages of hope (or irony) similarly relegated to commercial signage rather than legible in the subjects themselves (Figure 10). Most powerfully, because he purposefully scanned the same territory where the FSA photographers worked—the rural South, the industrial Northern cities—Rickard hints that the figures that appear in his photographs might well be the descendants of Evans's or Lange's subjects, and thus in need of empathy, if not active economic intervention.

Aside from formal and political parallels, Campany also detects affinity in Evans's and Rickard's distance from their subjects. Evans took in-person but relationally detached photographs; Rickard takes Evans's humanization through photographic depersonalization a step further, removing himself from the photographer/subject relationship entirely. But in drawing this equivalency, Campany is overly formalist, smoothing the obvious—and quite real—distinctions between Rickard's machine gaze and Evans's human gaze. Campany's language (survey, data) foregrounds the nonexistence of intimacy between Rickard and his subjects, in contrast to the FSA photographers' famously intimate (that is, both physically proximate

Fig. 9. Walker Evans, *New Orleans Vicinity*, 1935.

Fig. 10. Doug Rickard, *#41.779976, Chicago, IL. 2007, 2011.*

and personal) relationships to their subjects.[16] Writing in another Aperture monograph, this one devoted to Evans, Campany describes a still from Evans's series of child graves: "Evans photographs at the respectful distance of mourning."[17] Unlike Rickard, whose style Campany equates with Google's data-gathering surveillance, Evans's work is here figured in the language of human relations, mediated by one machine, not Rickard's two.

Rickard accounts for all discrepancy between his work and Evans's by affirming his use of Google as born of necessity. *A New American Picture* is a digital road trip, but Rickard maintains that he might as well have driven it himself.[18] We should remember, though, that Rickard's use of Google Street View is not merely a concession in an otherwise humanist project; it defines the project's aesthetics and its politics. It is the very deviation from documentary street photography's conventions that sets Rickard's work apart from the precedents to whom he is so often compared. If Rickard cannot responsibly be aligned with Walker Evans and the FSA, what tradition does his work more appropriately populate? In examining the work of nineteenth-century contemporaries Charles Marville (1813–1879) and Eadweard Muybridge (1830–1904), we will see that Rickard's photos fit just as appropriately into these artists' distinct tradition of survey, catalogue, and speculative photography, which precipitates real estate development and influx of capital into previously disinvested areas.

Marville, Muybridge, and Speculative Photography

Setting aside questions of impact, the FSA's goal, at least, was clear: to humanize poverty in order to shift public opinion and secure funding for its amelioration. We might think of the FSA, then, as aiming to engender domestic security insofar as the program and its photographs sought to give poor rural Americans a more stable life than the Dust Bowl and migrant refugee camps could offer. If the FSA photographers used their commissions to center concerns of housing insecurity, among other effects of rural poverty, their photographic tradition stands in direct contrast to other ways of visualizing poverty that seek to catalyze urban development by visualizing slum life and calling for its clearance.

Perhaps the best-known example of this kind of pre-development slum photography is the series of photographs that Charles Marville shot of Paris, representing the conditions of the city's medieval streets before and after Haussmannization, the urban modernization enacted by Georges-Eugène Haussmann under Napoleon in the mid-nineteenth century (Figure 10). Haussmann's renovation included the implementation of capital projects at the scale of whole neighborhoods across the city; grandiose apartment blocks and wide boulevards

16 Scholars have enumerated the differences between Evans and Lange's style. Where Evans made a point of not living with his subjects, Lange was famously much closer with hers. Nevertheless, the humanizing model exemplified by the FSA—wherein both Lange and Evans had personal relationships and conversations with their subjects—is contrasted by Rickard's work, all of which is impersonally mediated by Google's camera. James C. Curtis, "Dorothea Lange, Migrant Mother, and the Culture of the Great Depression," *Winterthur Portfolio* 21, no. 1 (1986): 17.

17 David Campany, *Walker Evans,* (New York: Aperture, 2015).

18 Rickard, "A New American Picture," Annenberg Space for Photography.

replaced over-crowded and unsanitary streets. As Peter Barberie, curator of photography at the Philadelphia Museum of Art, writes, "reactions against such overhauls, along with a desire to document and promote all the projects, motivated the widespread use of record photography."[19] Marville's work fit into the latter category. As a contract photographer for "city agencies involved in the physical modernization of Paris," he produced "records of the transformations [the agencies] were superintending."[20] In this instance and others, such as photographs produced of American neighborhoods prior to the slum clearance urban renewal projects of the mid-twentieth century, visualizing an underdeveloped area led quite explicitly to its development.[21]

Marville's project has become the archetype of urban development photography. But Rickard's American imaging project is perhaps better understood as the successor to the work of Eadweard Muybridge. Known for his motion studies of horses, Muybridge also took photographs of natural landscapes in the American West around the same time that Marville took his photos of Paris. But unlike Marville, whose photos anticipated and showcased redevelopment that he knew was coming, Muybridge's photos constituted a less certain but more explicit project to sell land in what was, at the time, a part of the country primarily inhabited by indigenous people. As Rebecca Solnit has shown, railroad barons like Leland Stanford commissioned photographers including Muybridge to produce images of natural landscapes; the images were meant to encourage westward expansion and development (Figure 11).[22] Distributed eastward through various media, these "idealized landscapes," writes Solnit, "proliferated on teacups and plates, printed fabric, advertising cards, wallpaper, cheap prints, even the motifs on stock certificates, as well as in the art books Muybridge once sold. . . . There was a market for and in California."[23]

Images of the West became commodities that could promote expansion by settlers. Working in this tradition, Muybridge made travel replacements like the stereoscope—a precursor to Google Street View's digital immersive environment—and sent them to the East Coast to give viewers a taste of what landscape they would encounter were they to pack up and move west. Testimony by Oliver Wendell Holmes of the stereoscope shows just how similar the

19 Peter Barberie, "Charles Marville's Seriality," *Record of the Art Museum, Princeton University* 67 (2008): 34.

20 Ibid., 31.

21 During urban renewal in the United States in the 1950s, photography often justified slum clearance. The Committee on Slum Clearance of the City of New York, headed by Robert Moses, for example, produced brochures to this effect. Themis Chronopoulos, "Robert Moses and the Visual Dimension to Physical Disorder: Efforts to Demonstrate Urban Blight in the Age of Slum Clearance," *Journal of Planning History* 13, no. 3 (2014): 207– 33. Likewise, the Los Angeles Housing Authority commissioned photographs showing the dilapidated nature of the Chavez Ravine, a Chicano neighborhood violently cleared to make room for public housing, which never materialized. Instead, Dodger Stadium was built where the Chavez Ravine stood. See the work of photographer Leonard Nadel for the Los Angeles Housing Authority. John Laslett, *Shameful Victory: The Los Angeles Dodgers, the Red Scare, and the Hidden History of Chavez Ravine* (Tuscon, AZ: University of Arizona Press, 2015).

22 My focus here is the means by which early photographic technology engendered development, but there is of course a similar tradition of landscape painting in the American West in this period, such as the work of Thomas Moran and Albert Bierstadt.

23 Rebecca Solnit, *River of Shadows: Eadweard Muybridge and the Technological Wild West* (New York: Viking, 2003), 42.

Fig. 11. Charles Marville, *Haut de la rue Champlain (vue prise à droit)* (Top of the rue Champlain (View to the Right)), 1872.

experience of using that tool was to the experience of using Google Street View that Rickard describes: "The shutting out of surrounding objects and the concentration of the whole attention, which is a consequence of this, produce a dream-like exaltation . . . in which we seem to leave the body behind us and sail into one strange scene after another, like disembodied spirits."[24]

In addition to these early stereoscopic images, Muybridge also made large-format wet plate photographs of the natural landscapes of Yosemite and its Merced River (Figure 12).[25] Crucially, in all of these landscapes, Muybridge framed the land to make it look untouched—visually eradicating the indigenous people who could, and would, be forcibly removed. Thus, when white, East Coast residents saw Muybridge's photos of Leland Stanford's newly built railroad, the encroachment seemed to be made for them. In his aesthetically inoffensive natural photos, Muybridge beckons development, naturalizing such movement through a visual language of Westward progress.[26]

Solnit thematizes the extension of the railroad to the West as "annihilating space and time." Both railroads and photography "brought the world closer for those who looked."[27] The relationship between closeness and development remains true today. Like Google Street View, a modern-day photographic travel replacement, the railroad collapsed the United States so as to make it accessible and knowable for white Americans of some means. This framing resonates with the inclination of Rickard, and many others, to use Google Street View to explore places they cannot readily visit, due to logistic constraints or perhaps sociological ones; it is significant that the poor, mostly Black neighborhoods Rickard depicts remain all but unexperienced by white Americans, even those who live in the same city. To use Google Street View is to explore these places, to know them as physically derelict, but to do so without having to visit them or engage with the people who live there. As Daniel Palmer writes, "Street Views can

24 Ibid., 41.

25 Ibid., 93. Muybridge's Yosemite photographs are exactly contemporary with Marville's photographs of Haussmannization.

26 Ibid., 92.

27 Ibid., 17.

Fig. 12. Eadweard Muybridge, *Fall of the Yosemite*, 1872.

suggest what it feels like when scenes are connected primarily by geographic contiguity as opposed to human bonds."[28] The steps that Muybridge took to make the West seem not wild but placid are similar to the way Google Street View makes poor urban neighborhoods ostensibly knowable to corporate developers or wealthy white Americans. In both cases, development's visual rhetoric plays out by way of erasure: People who live in colonizable or gentrifiable places on Google's map have blurred faces, their lives reduced to whatever spills into the street. And in Muybridge's photos, "Indians were simply erased so as to make the land seem an untouchable wilderness, a place apart from history and humanity, and it is this transcendentally uninhabited landscape that became the touchstone of American imagination of nature."[29]

Without human impediment, colonization and high-end real estate development become both morally justifiable and naturalized. Rebecca Ross and Ben Campkin put the potential effects of this kind of photography bluntly in their essay "Negotiating the City Through Google Street View." They write that Google's record "of a derelict house speaks to the potential role of street view in mobilizing redevelopment programmes, in informing real estate property sales, in taxation, or government audits of the state of the neighborhood."[30] As we shall come to understand, to use Google Street View is to be situated squarely in the tradition of real estate speculation at the expense of housing stability for poor Americans, the very goal to which the FSA aspired.

The potential of Google's images to be aligned with Muybridge's speculative tradition—that is, to be wrapped up in the redevelopment of impoverished American neighborhoods at the expense of their residents—may seem to be in direct opposition to the New Deal's project to provide support, outreach, and literal architectural stability for the country's poorest residents. I have argued in this chapter that Rickard's photos are closer to Muybridge's travel replacement,

28 Daniel Palmer, "Google Street View and Photography in Public Space" in *The Culture of Photography in Public Space*, ed. Anne Marsh, Melissa Miles, and Daniel Palmer (Chicago: University of Chicago Press, 2015), 168– 184.

29 Solnit, 92.

30 Rebecca Ross and Ben Campkin, "Negotiating the City Through Google Street View" in *Camera constructs: Photography, Architecture and the Modern City*, ed. Andrew Higgott and Timothy Wray (Farnham, UK: Ashgate, 2012), 153.

settler colonial tradition than to the FSA's humanitarian tradition. However, there is no denying that Rickard's approach—dramatically representing hardship under creeping evening light or in total monochrome of a grey day—continues to evoke similar feelings to those that have allowed the FSA photos to so endure: They assert beauty in places Rickard deems "filled with tragedy."[31] Rickard's attempt to wedge himself in a photographic lineage by aesthetically miming the FSA photos, however, stands at odds with its total divorce from the social mission of those works. What's more, that Rickard is able to maintain formal qualities of the FSA tradition in work derived from antithetical source material reveals the ethics of the FSA to be enacted through an aesthetics of individualism, seeking amelioration through relief funding,not systematic change—a position itself not entirely at odds with the ethics of speculative real estate development and survey.[32]

How, then, can Google Street View combine the individualizing and humanizing tendencies of an FSA photograph and the for-profit project of pre-development photography? As we will see in the next chapter, quite easily. Even if Rickard is situated in a long history of photography, Google's mapping project emerged from a more precise political moment in the 1960s and '70s when computer algorithms and then the internet came into being. This moment celebrated the possibility that these two modes of thought—the supposed humanistic qualities of the portrait and the organized mechanical systems of Haussmannization or the American railroad—could coexist.

31 Rickard, "A New American Picture," Annenberg Space for Photography.

32 See Martha Rosler's critique of liberal documentary photography, of which the FSA photographs serve as a foundational example. Writes Rosler, "the meliorism of [Jacob] Riis, Lewis Hine, and others involved in social-work propagandizing argued, through the presentation of images. combined with other forms of discourse, for the rectification of wrongs. It did not perceive those wrongs as fundamental to the social system that tolerated them (the assumption that they were tolerated rather than bred marks a basic fallacy of social work.)" That is, social documentary as a genre is fundamentally reformist. And indeed, projects like the FSA's oftentimes invoked the very redevelopment efforts—which displaced but did not solve poverty—that we might think to be opposite this social tradition. Rosler, "In, Around, and Afterthoughts," 177.

CHAPTER 2

Cybernetics and the City: Early Experiments in Digital Mapping

> "It is difficult to accept as one this world of ghetto, criminal wars, urban violence, and inner erosion that coexists with bioengineering, genetic engineering, the pill, distant sensors, cyborgs, and an ever-increasing communications network."
>
> — György Kepes, founder of the Center for Advanced Visual Studies at MIT, in Arts and the Environment, 1972

To understand how Rickard's photographs reconcile the humanizing tendencies of the Farm Security Administration with the speculative tradition exemplified by Muybridge, we must consider the period in which these tendencies came into close conversation: the mid-twentieth century. In that era, the most direct precursor to Google Street View was born as two seemingly opposed groups—a freewheeling counterculture and a rigid military bureaucracy—coalesced around a set of shared cultural and political values. Computer researchers at universities, urban planners in city government, and wartime officials developed programs that simulated complex systems in an attempt to predict and intervene in those systems' futures.[33] Technocrats and members of the counterculture alike envisioned a computerized world in which the achievement of efficiency, personal liberation, and organization stood in for other social advancements.

Foregrounding personal transformation and technological developments, these groups together produced individualistic material conditions that would influence both the internet and American cities. Their ideology is legible in both the interface of digital mapping and the brick and mortar of urban planning, both of which are also reflected in the aesthetics of *A New American Picture*. In examining the prehistory of techno-utopianism as it relates to shifting ideas about what constitutes freedom—from capitalism or from regulation—we begin to see the implicit politics of technology that shape which scenes Rickard selects for his photographs.

33 Fred Turner, *From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism* (Chicago: University of Chicago Press, 2006).

Rural Technocracy

How, wonders media historian Fred Turner, "did a social movement devoted to critiquing the technological bureaucracy of the Cold War come to celebrate the socio-technical visions that animated that bureaucracy?"[34] To answer this question, Turner looks to the popular idea of cybernetics, which fueled many countercultural projects in the 1960s and '70s. Theorized by mathematician Norbert Wiener during World War II, cybernetics posited that interconnected networks made up of individual, autonomous nodes can be united by processes of feedback, in which closed systems can learn and adapt from themselves. Cybernetic thinkers strove to make the theory capable of describing any system, including computational, biological, and cultural systems alike. In his seminal book *The Human Use of Human Beings*, Wiener wrote, "It is my thesis that the operation of the living individual and the operation of some of the newer communication machines are precisely parallel."[35] If Wiener's equation of man and machine is troubling, the contention that machines could learn from themselves and their past mistakes, just like people, was in fact a humanist gesture at the time. But precisely the theory's flexibility allowed it to take on different valences for counterculturists and military bureaucrats.

Defense research groups such as the RAND Corporation and Lockheed Martin as well as New Communalists groups of the 1960s all found solace in Wiener's ideas about cybernetic networks. The United States military, for example, had used cybernetic principles during World War II to predict how a particular action would impact the broader combat landscape. By the 1950s, with the end of the war, military officials and contractors needed a profitable peacetime terrain in which to apply cybernetic technologies. They found it as they began to use their tools and thinking in the field of city planning and the emergent world of declassified civilian computing.[36]

But cybernetics proved equally appealing to New Communalists, a particular stripe of the hippies with which most Americans are culturally familiar. These mostly young, affluent, white Americans formed communes in the American Southwest and the hills of Northern California in the sixties and seventies. For these groups, who were fleeing mainstream society, returning to nature, and raising consciousness by way of psychedelic drugs (among other pursuits), cybernetics offered a liberating model for non-hierarchical social organization. As Turner has shown, these groups held starkly different beliefs about political change than their generational counterparts who remained lodged in mainstream society. In an era when groups on the political Left—from Students for a Democratic Society to the Black Panther Party—fought for various social reforms, New Communalists were interested in

34 Ibid., 39.

35 Norbert Wiener, *The Human Use of Human Beings: Cybernetics and Society* (Cambridge: The Da Capo Press, 1950), 26.

36 Jennifer Light, *From Warfare to Welfare: Defense Intellectuals and Urban Problems in Cold War America* (Baltimore, MD: Johns Hopkins University Press, 2004), 37.

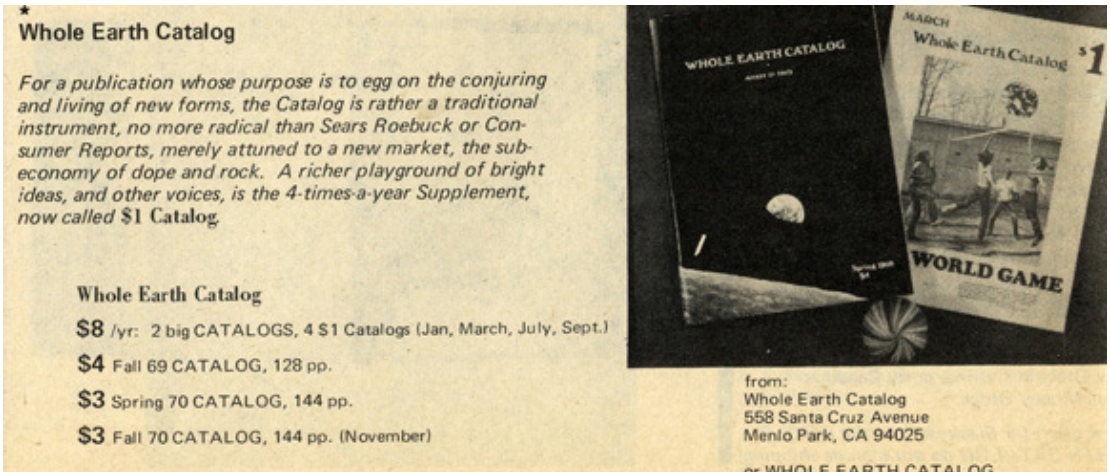

Fig. 13. Whole Earth Catalogue, 1970.

"consciousness" broadly defined. Usually, consciousness implied becoming more attuned to the relationship of humans to their ecological environments or psychological state, in place of more concrete ideas about policy or social justice.[37] Defined in such broad terms, cybernetics became comforting in this time of global warfare because it posited global interconnectedness and harmony. But researchers at MIT, technocrats at Lockheed and RAND, and New Communalists didn't just believe in similar organizational frameworks. They profoundly influenced each other as esoteric-made-popular theories circulated at universities in and around Boston and Cambridge, spreading to young people nationwide who were in search of more dynamic ways to engage with the world than their parents' buttoned-up generation could offer.

Nowhere can we see this union more clearly than on the pages of the *Whole Earth Catalogue* (Figure 13). Written and printed by Stuart Brand, a New Communalist who would go on to be intimately involved in the development of the early internet, the catalogue served as a guide for the large groups of well-off young white Americans retreating into nature and away from industrialized society in this period. Suede fringe jackets and wool blankets listed alongside combat boots and transistor radios indicate that, while the New Communalists hoped to turn away from society by embracing the language of individual liberation and markers of personal style, they did so through capitalist frameworks. Objects, they thought, could set them free.

Turner defines the catalogue as metonymy for the "four somewhat overlapping social groups: the world of university-, government-, industry-based science and technology; the New York and San Francisco art scenes; the Bay Area psychedelic community; and the communes that

37 Turner's key contribution to the study of alternative living in the 1960s and '70s is his distinction between the New Left and other apolitical splinter groups within the American counterculture, such as New Communalists. Major ideological differences between these groups have largely been smoothed over in cultural memory. My account, following Turner, seeks to make clear how critical the political differences between leftist organizing and personal transcendentalism were in this period.

sprung up across America in the 1960s."[38] New Communalist reliance on technological systems meant that while individual nodes (or, people) maintained countercultural individuality within communal social organizations by way of personal dress or transcendental experiences with drugs, their world remained largely anchored in capitalist supply chains and informed by its individualist bent.

Geodesic domes, for example, offered a cheap, collaborative way to build structures at communes. They formed the entire architectonic landscape at Drop City, an artist commune in rural Colorado founded in 1965 under the auspices of the experimental performance artist Allan (Figure 14). The dome itself had been invented a decade earlier by Buckminster Fuller and his students at Black Mountain College (another artistic quasi-utopia). The spheres were comprised of interconnected triangles that physically represented the cybernetic system of linked nodes. While the form signified communalism and flexibility, it also evinced a turn away from materialism in politics and architecture and towards more ephemeral pursuits.[39] In the introduction to *Arts of the Environment*, a collection of essays published in 1972, György Kepes points to Fuller's domes as an emblem of this shift:

> The dominant matrix of nineteenth-century attitudes was the use of Marx's term "reification"; relationships were interpreted in terms of things, objects, or commodity values. Today, a reversal of this attitude has begun to appear; there is a steadily increasing movement in science and in art toward processes and systems that dematerialize the object world and discredit physical possessions...Buckminster Fuller's airy dymaxion structures are important milestones of this road. Imaginative younger architects and engineers have moved still further away from weight and have touched upon the possibilities of enclosing space with air currents. Like instant envelopes these currents could be turned on or off as needed by sophisticated sensing and computing devised and regulated by weather conditions. Architecture is making fundamental departures from its traditional position as a discrete, independent, heavy, and solid form catering mainly to the usual sense and is becoming a responding, bodiless, dynamic, and interdependent structure answering to man's changing needs and growing controls.[40]

Per Kepes's analysis, artists and engineers like Fuller in the sixties and early seventies replaced Marxist materialism with non-objective, ephemeral architectural systems, like domes, and systems thinking, like cybernetics. Because the aesthetic avant-garde (Kaprow, Fuller, and others) supplanted more politically concrete notions of class struggle with theories about flexibility and responsive computing systems, their ideas were easily taken up by technocrats and city planners.

38 Turner, *From Counterculture to Cyberculture*, 73.

39 Simon Sadler, "Drop City Revisited," *Journal of Architectural Education*, Vol. 59, No. 3 (Feb. 2006): 5–14.

40 György Kepes, *Arts of the Environment*, (New York: George Braziller, 1972), 11.

Fig. 14. Dennis Stock, Drop City artist commune, 1969.

In reality, the relationship between the counterculture and cybernetic theorists like Wiener was not a one-way street; countercultural ideas about individualism mapped back onto capitalist technocracy as well. As researchers at MIT in the generation following Wiener worked to created military tools that would eventually be employed by urban planning departments, and as those departments began to saddle outside defense contractors with the work of city-making, the individualism central to countercultural interpretations of cybernetics meshed perfectly with the dominant ideology of capitalism.

Urban Feedback

The replacement of politics with technology on communes and in military and urban planning contexts had concrete implications for the design that emerged from these arenas. While the geodesic dome epitomized Kepes's ephemeral metaphor, it is only one example of the many ways this particular cultural and ideological niche could translate into lived environments. Cybernetic ideas about systems and society also pervaded discussions about lifestyle decisions and their environmental impact. In the same essay collection in which Kepes identifies systems thinking as antithetical to Marxist materialism, he also highlights installation art by the Pulsa Group, an artist collective based at Harmony Ranch, a commune in rural Connecticut, where members sought to carve out an alternative model for living ethically with the environment (Figure 15). As the group—which always published collectively—wrote in their "Notes on Group Process," they aimed to create "techniques for controlling perceptible

Fig 15. Serge Tcherepnin and the Pulsa Group, *Brain waves make music*, Harmony Ranch, 1970.

wave energies" in the service of environmental conscious-raising.[41] In a public artwork at the Boston Public Garden, the Pulsa Group "placed 55 strobe lights under the water of a four-acre, meandering pond and, around the edge of the pond, above water, placed 55 speakers" (Figure 16). As the *New York Times* described the intervention at the time, "Through programmed banks of computers, light and sound flashed and streamed in changing patterns across the water at speeds as high as 300 miles an hour. It looked as if the patterns of darting automobile headlights and traffic noises had been locked into a self- repeating impressionist composition."[42] The installation was meant to model the nature of feedback in complex systems, such as cities and ecologies; Human movement and noise had a direct impact on the behavior of the lights in the installation.

As should be clear from the group's statement, the Pulsa Group's art dealt more with personal transformation—in this case, becoming aware of one's intervention in the environment—than broader political change. In conceiving of the world as a system of humans and non-human, environmental actors in harmony, the Pulsa Group reenacted cybernetic ideas about interconnected, adaptable systems. As they write in their essay "The City as an Artwork" in the Kepes-edited *Art of the Environment*, "the principle means of decentralizing cities...

41 Pulsa Group, "Notes on Group Process," 1968, Internet Archive, https://archive.org/details/Pulsa-NotesOnGroupProcessCa1968/mode/2up.

42 David L. Shirey, "Pulsa: Sound, Light, and 7 Young Artists," *The New York Times*, December 24, 1970.

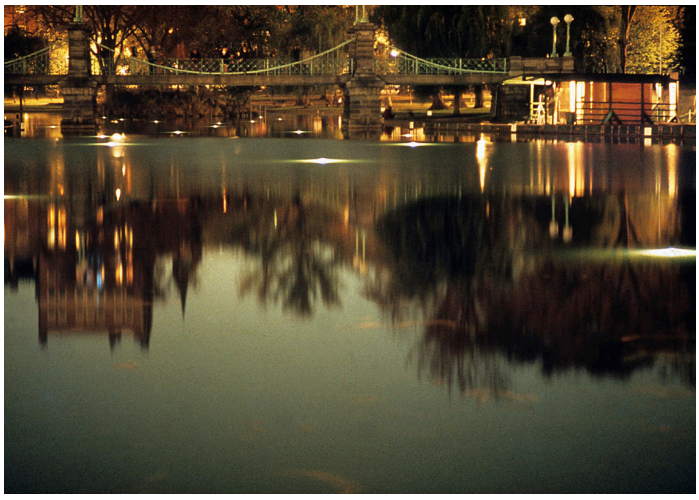

Fig. 16. The Pulsa Group, Boston Public Garden installation, 1970.

should be accomplished by creatively expanding the interactive awareness of local populations through media that incorporate principles of *feedback*."[43] In this case, the word "feedback" signifies constantly adapting relationships between humans and the environment, urban or ecological. The Pulsa Group wanted to affect how people thought and felt; if visitors to the Boston Public Garden could understand the impact of their actions on this small-scale system, they would be more conscientious in larger-scale systems.

The Pulsa Group mirrors other New Communalist artists in their penchant for psychological rather than political reform, but their particular focus on the city is unique. Ideally, they write, "the community's art would consist rather in extending the sensory enhancement of all aspects of community life. From model projects like these, works could be designed to deal with larger systems."[44] That is: The Pulsa Group's light and sound installations were scalable prototypes that could be applied to the much larger city. What, then, might a city defined by principles of feedback and adaptability, consciousness and personal transformation, look like?

The limits of this model become clear as it grows to the scale of the city. If the failure to transform social structures was inoffensive within the installation space of the Boston Public Garden, the formalism of ideas about feedback became devastating when it began to influence urban design. The consequences of taking up Pulsa's vague idealism is evident in the readiness with which their ideas were mobilized by the conservative, early-stage neoliberal urban planners who operated in Wiener's and Kepes's circle at MIT. The same Kepes essay collection, which focues on consciousness, mutability, and immaterial systems, features an essay by Jay Forrester, a prominent computing and systems theorist at MIT. Forrester's essay frames discussion of cities using a nearly identical rhetoric to that of the Pulsa Group. "Planning," he posits, "instead of dealing with problems and their solutions, could deal with the design of social systems to produce systems less likely to generate problems."[45] That is: in place of policy changes—which Forrester sees as largely inconsequential within complex systems like cities—urban planners should allow systems to learn from their mistakes and adapt

43 Emphasis added. Pulsa Group, "The City as an Artwork," in *Arts of the Environment*, 217.

44 Ibid., 219.

45 Jay Forrester, "Planning under the Dynamic Influences of Complex Social Systems," in *Arts of the Environment*, 152.

in turn. To do this, they must introduce into urban planning computer algorithms that follow Wiener's cybernetic principles developed during World War II.

Imagining the city as a system has an obvious and politically progressive antecedent in the work of Jane Jacobs, whose anti-urban renewal crusades and related writing figured the city metaphorically as a complex ecological system. But where her writing centered neighborly relationships, which she saw as a failsafe against all manner of urban problems (namely crime), her prose laid the groundwork for a more politically conservative interpretation of urbanism.[46] For example, a 2013 working paper from the Santa Fe Institute—a think tank founded in 1984 to research "complex systems"—takes its title and principle from Jacobs insofar as it figures the city as a "complex system," but ultimately provides overly-mathematical urban solutions. For example, the article suggests that in order to reduce violent crime, cities should increase Gross Domestic Product, and in order to reduce carbon emissions, they should aim to increase land prices—all suggestions at which Jacobs would have likely shuddered.[47]

Forrester's work demonstrates the transition away from people-centered systems thinking and towards computer-driven systems planning. Forrester published his highly influential, arch-conservative perspective on urban planning in the late sixties and early seventies. His systems thinking responded in large part to the failures of urban renewal programs in the 1950s and '60s. Then, the federal government had sponsored a wide suite of public programs they had hoped would modernize American cities through large-scale redevelopment, slum clearance, and highway-building. In reality, the implementation of these design changes left poor communities devastated as their neighborhoods were razed, often without resettlement plans.[48] What's more, even though urban renewal purported programs to solve poverty and crime, they did little to address underlying social inequity. As historian Jennifer Light writes, "interpreters pinned much of the blame for [urban renewal's] lack of success to its exceedingly narrow focus on physical planning and its concomitant neglect of social planning."[49] Just as the Pulsa Group focused on environmental awareness within the Boston Public Garden at the expense of politics beyond that space, Forrester and his ideological descendants focused on development and systems at the expense of social equity.

Crucially, however, just as Wiener posited his computerized vision in humanist language, government officials and academics like Forrester arrived at systems thinking in pursuit of a more human-centered approach to planning in the wake of urban renewal. The Department

46 In the introduction to the 1992 edition of *Death and Life*, Jacobs writes of cities and biological systems, "Both types of ecosystems require much diversity to sustain themselves ... and because of their complex interdependencies of components, both kinds of ecosystems are vulnerable and fragile, easily disrupted or destroyed." Jane Jacobs, *Death and Life of Great American Cities* (New York: Vintage Books, Random House, 1992), 9– 10.

47 Luís M. A. Bettencourt, "The Kind of Problem a City Is," Santa Fe Institute, 2013, 7.

48 The reshaping by urban renewal programs of poor American neighborhoods is extremely well-documented and need not be rearticulated at length here. See Samuel Zipp, *Manhattan Projects* (New York, Oxford University Press, 2010) for a comprehensive account of these programs in New York City.

49 Light, *From Warfare to Welfare*, 50.

of Housing and Urban Development in this period, writes Light, "promoted the idea that information systems and systems analysis could respond directly to the failures of urban renewal. A new conception of urban planning and management as rigorous, applied sciences might provide the solution that would help to manage complex data sets, depoliticize the political process, and force a scientifically verifiable outcome."[50] Namely, the U.S. Department of Housing and Urban Development thought that systems analysis—the kind Wiener and others performed at MIT and Forrester later parroted—would allow them to more accurately understand the people, not just the physical spaces, that their programs engaged. Light refers to "a crisis of social measurement," wherein the government in this period collected almost no data on, for example, citizens receiving welfare benefits.[51] Similarly, following the Watts riots of 1965, "federal investigators following up on those disturbances found a severe lack of available data about community residents and their living conditions."[52] Thus, in response to increasing unrest in poor American neighborhoods, "the application of cybernetic techniques and computer technologies from military management applications to the civilian public sector" seemed to planners, in its focus on data collection and analysis, to be a more carefully calculated approach to city management than urban renewal had been.[53] But it was also, we will see, an immensely limiting perspective, making visible on the computer screen certain problems and solutions at the expense of others only legible in the real world.

In addressing poverty in urban communities, city governments did not simply rely on cybernetic strategies that had originated in the military. They went still further still. In the late sixties, urban planning departments at the municipal level began to contract out their tasks to military contractors or bring in systems analysts from military or corporate management backgrounds to tackle the seemingly insurmountable problems of urban poverty. As these consultants flooded into city government following Forrester's gospel, their prescriptions remained similar across most cities. They brought computers that could process massive amounts of data, on which they could simulate the physical space of cities, and through which planners could run algorithms to tell them the solution to various urban problems. As one might expect, however, "every complex urban problem had to be defined in more narrow terms so it could be modeled."[54] Indeed, much of the goal-setting conducted by planning departments in collaboration with defense consultants in this period, such as reducing urban blight and improving residents' quality of life, could not be quantified and therefore could not be solved with these tools meant for more precise military problems, such as predicting a missile trajectory. In practice, the tools and ideology that accompanied them conflated poor people, who could be counted, with poverty, which could not, leading to the clearance of poor people from urban centers and leaving the problem of poverty displaced but unsolved.

50 Ibid., 51.
51 Ibid., 50.
52 Ibid.
53 Ibid., 51.
54 Ibid., 60.

In 1960, for example, the City of Pittsburgh's planning department hired Calvin Hamilton, who had worked as an early military planning researcher at Harvard and would go on to direct the City of Los Angeles's planning department. Hamilton brought tools for digital mapping from Harvard to Pittsburgh, and the city began to create computer simulations of urban space, through which planners would be able to visualize the city from their offices and prescribe solutions. Planners and consultants in Pittsburgh, however, admitted that planning based on an unreal and oversimplified map impacted their decision-making. Hamilton was explicit that "in no case are these models photographic reproductions of reality. If they were, they would be so complicated that they would be of little, if any, use."[55] When narratives became numbers so that planners could input them into their new computers, the solutions appeared successful on the computer, but devastated real urban life just as urban renewal had before.

The results were indeed devastating for poor urban residents. Forrester's prescriptions, for example, included the depletion of all public housing programs (he thought increasing housing for the unemployed would incentivize unemployment) in favor of complete slum demolition. A city could increase its attractiveness for "new enterprise construction" by forty percent, wrote Forrester, if it implemented "favorable tax laws, by establishment of industrial parks within the depressed areas of the city, and by urban polices which favor business and the kinds of residential construction which will attract managers and skilled labor."[56] Whereas urban renewal had—at least on paper—sought to improve urban quality of life for citizens through slum clearance and construction of modern architecture, systems thinking posited by Forrester explicitly used digital simulation and computer algorithms to incentivize private interests. Cloaked in the freewheeling tradition of artists like the Pulsa Group, though, systems thinking remained so vague that it could pass for humanist.

Cybernetics on the Screen

It is crucial to note that nascent urban imaging technologies, like the digital simulation, were an essential component of the early stages of the neoliberal urban planning that would dominate the final three decades of the twentieth century. That is, the postmodern urban environment itself developed in tandem with the mechanism made to visualize it.

As Light writes, beginning in the late sixties, urban problems became "strategic challenges to be met by defense intellectuals deploying techniques and technologies of command, control, communications, computers, intelligence, and reconnaissance."[57] It follows, then, that the tools employed to this end would be militaristic in nature. As media historians Aubrey Anable and Orit Halpern have shown, the interface of the immersive photographic map was born in

55 Ibid.

56 Forrester, "Planning under the Dynamic Influences of Complex Social Systems," 164.

57 Light, *From Warfare to Welfare*, 5.

Fig. 17. Architecture Machine Group, Aspen Movie Map still, ca. 1977

the context of a libertarian interpretation of cybernetics.[58] Researchers at MIT's Architecture Machine Group (AMG, now the MIT Media Lab) followed in Wiener's footsteps, working collaboratively across disciplines to produce technologies undergirded by cybernetic thinking for military and civilian uses. To that end, in 1977 the AMG acquired a contract from the Department of Defense's Advanced Research Projects Agency "to develop a computer-based surrogate travel system that the military could use to train personnel for urban combat."[59] By virtually experiencing a place before attacking it, military officials hoped soldiers would have a more informed understanding of the spaces where they would eventually fight. Eventually, the MIT team produced a station wagon with four 16mm film cameras strapped to the roof and programmed to take photos every ten feet. They tested it on the streets of Aspen, Colorado (Figure 17).

Emerging from the same city-as-warzone discourse that led to the creation of too-simple urban simulations in Pittsburgh (and most American cities), the so-called Aspen Movie Map that the AMG would create for DARPA was functionally identical to today's Google Street View. A user navigated a panoramic streetscape overlaid with navigation tools; buildings

58 Orit Halpern, "Architecture as Machine: A Brief History of the Smart City, Design and Cybernetics," in *When is the Digital in Architecture,* ed. Andrew Goodhouse (Montreal: Sternberg Press, 2017), 123-175; Aubrey Anable, "The Architecture Machine Group's Aspen Movie Map: Techno-Paranoia and Urban Crisis in the 1970s," *Television & New Media* 13, no. 6 (Nov. 2012): 498– 519.

59 Anable, 502.

Fig. 18. Architecture Machine Group, Aspen Movie Map navigation interface, ca. 1977

offered more information if you clicked on them. Users sat in an Eames chair in a dark room, where they used a joystick to navigate Aspen's newly virtual streets (Figure 18). As Anable contends, the Aspen Movie Map developed in the context of late-Seventies techno-paranoia surrounding "the loss of free will and individuality at the hands of authoritarian machines."[60] At the same time, it responded to "the rhetoric of urban crisis that attributed the perceived dehumanizing effects of the city to the cold right angles and superblock housing of brutal modernism and the social welfare state that it came to stand for."[61] The Aspen Movie Map and other AMG projects conceded to popular fear that a system—architectural or technological—would subsume the individual. Their projects, as an alternative to subsumption, centered the individual as a thinking, active urban citizen. In the Aspen Movie Map, the user, rather than the programmer, determines what will appear on his screen; the user, rather than the planner, determines what his city will look like based on his own navigation. Since the introduction of the Aspen Movie Map in the early seventies, the immersive mapping interface that now populates Google Street View has barely changed. A single user now navigates the entire digital world from his or her computer, mimicking the act of walking or driving around a city from street height.

60 Ibid., 515.
61 Ibid.

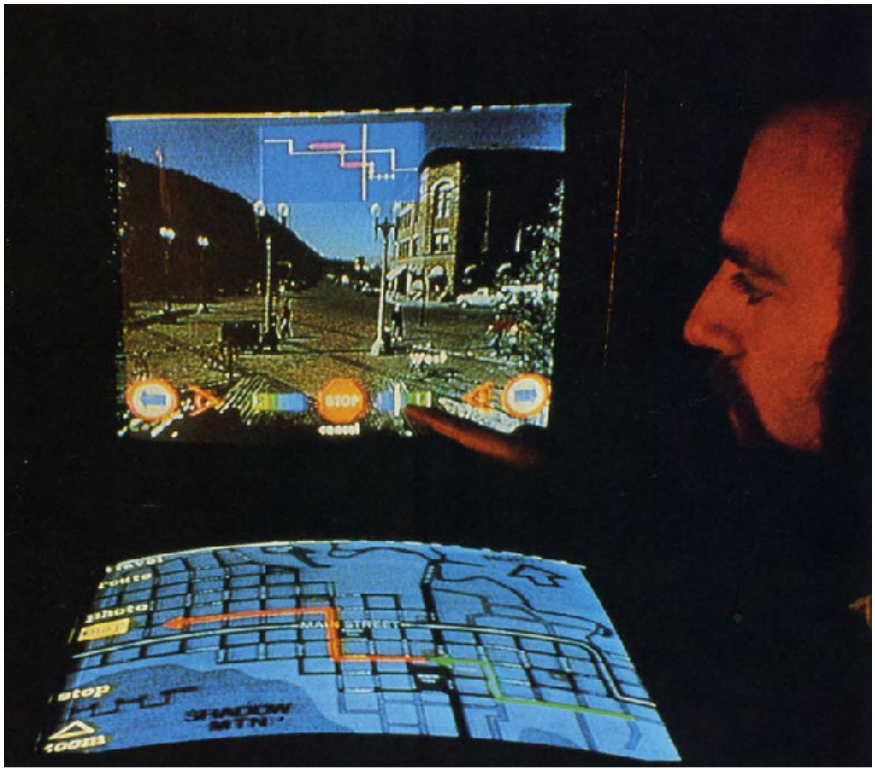

Fig 19. Architecture Machine Group, Aspen Movie Map navigation interface, ca. 1977.

Fig. 20. Screenshot by author, Google Street View interface, 2020.

The interface of the Movie Map corresponds closely to urban political shifts in this period, foregrounded by Jay Forrester's urban policy prescriptions. Specifically, Anable invokes DavidHarvey's contention that neoliberal policies caused city governments to "shift from the 1960s 'managerial' style of city governance to 'entrepreneurialism' beginning in the 1970s."[62] The vanishing role of city planners "in favor of planning commissions made up of private real-estate developers and corporations," writes Anable, evidences this change.[63] The map, then, with its focus on individual navigation, mirrors the neoliberal turn on the level of the interface (Figure 19). But using individualistic software was not enough to remove all constraints standing between users (or political subjects) and the creation of their own urban worlds. As Light demonstrates, urban fate for poor Americans in the seventies remained largely overdetermined by a new kind of algorithmic planning. Here, we begin to see that as cybernetic thinking—in terms of systems analysis—informed city planning, similar ideologies employed by similar groups (planners, university researchers, the military, and technology corporations) also undergirded the tools produced to visualize those cities. Critically, as we saw in Pittsburgh, tools like urban simulators, once routed back into increasingly privatized planning departments, would determine the physical fate of American cities.[64]

The Aspen Movie Map begins to resolve the dichotomy between the two photographic models that I outlined in Chapter 1. In that chapter, Muybridge represented a dehumanizing photographic tradition that provokes development, while the FSA offered a more humanizing alternative that urged against displacement. In the Movie Map, the individualism of the user, who thinks they are free to shape his world, stands in contrast with the reality that his world has already been made for him. This technology combines the human-centered nature of the FSA tradition with the technologically overdetermined tradition of Muybridge's railroad photographs.

Indeed, even if the agency of the user stood at the heart of AMG's ideology and the projects they worked on, to center the human and their autonomy on the map was a largely superficial concession in a much broader project of university- and military-sponsored mapping in this period. We can understand the introduction of the individual into the digital map as a result

62 David Harvey, *Spaces of Capital: Towards a Critical Geography* (London: Routledge, 2001): 345– 68.

63 Anable, 515.

64 As the Aspen Movie Map and an individual-centric form of urban planning emerged in response to less personalized forms of urbanism that dominated the 1950s, so too did a generation of artists and thinkers fascinated by the aesthetics of highways and commercial landscape they ushered in. In 1965, three recent graduates MIT, urban planner Kevin Lynch, designer Donald Appleyard, and architect John Myer wrote *The View from the Road* (Cambridge, MA: MIT Press, 1965), which examines similar questions—namely, how highways produce a particular kind of environmental perception (hyper-personalized, and reproduced in the urban simulation). A year later, Ed Ruscha published his artist-book, *Every Building on the Sunset Strip*, something of an analogue iteration of Google Street View, in which Ruscha took panoramic images that indexed one street in West Hollywood. Ed Ruscha, *Every Building on the Sunset Strip* (Los Angeles: Ed Ruscha (self-published), 1966). And in 1968, Robert Venturi and Denise Scott Brown hosted their inaugural "Learning from Las Vegas" studio at the Yale School of Architecture. The accompanying book used visual essay similar to Ruscha's to argue for taking seriously and appropriating the signage and kitsch aesthetics of the Los Vegas strip. Robert Venturi and Denise Scott Brown, *Learning from Las Vegas* (Cambridge, MA: MIT Press, 1972).

of the influx of countercultural attitudes about personal liberation into the university-military research complex. And as the individual freedom so central to the New Communalists took on a libertarian political valence when rerouted into the technocratic institutions that they so criticized, it carried that meaning into the urban map, too. In the Aspen Movie Map and its successor in Google Street View, individual interests displaced the collectivism that we might have once associated with the communes of the 1960s and '70s. By the time the Aspen Movie Map emerged, any countercultural impulse to transcend societal rigidity had been captured and redirected to support a capitalist technological project. That those groups were never anti-capitalist to begin with smoothed this transition into continuity.

In fact, as Turner has shown, the shift towards personal computing by the 1990s—which we see begin in the Movie Map—was not a wholly liberatory or democratic shift. It was a shift in the definitions of liberty, which now included freedom of private interests at the expense of a more justice-based notion of liberty. After the Movie Map, the PC and the internet continued to center individualism, a formal quality which spoke to the former but not the latter definition of freedom—to personal expression and free trade, but never to human rights. As the actual freedoms of choosing the kind of life one wishes to lead began to narrow in in the 1980s and '90s, with class position becoming all but carved in stone, the freedom to personalize the digital world grew exponentially. Americans can now, through Google Street View, take a virtual vacations from their living rooms, even if austerity measures and stagnating wages mean that large swaths of the population will never be able to afford these luxuries.

It is significant that when Google released Street View thirty years after the Movie Map was created, the corporation maintained an almost identical interface to its predecessors (Figure 20). Media historian Shannon Mattern has called attention to Google's impulse to use mechanisms that request individual input, terming the practice "mapwashing." The corporation, for example, has begun to use analog or grassroots tools like post-it notes and hand-drawn maps in "citizen input" portion of their projects to signal that input matters, when, of course, citizens will have little impact on the nature of these projects.[65] Although the AMG would not have framed it this way, the legacy of the virtually navigable map shows that even if the agency of the user is a central component of the experience of using the map, their experience and actions are a largely cursory step in the broader goals of the map—namely, the privatization of urban development. For the Aspen Movie Map, those goals were military in nature. For Google, as we will discuss in the next chapter, the goal has shifted to data-collection; interactivity is little more than data input.

65 Shannon Mattern, "Post-It Note City," *Places Journal*, February 2020, https://placesjournal.org/article/post-it-note-city/.

Fig. 21. Sidewalk Labs, rendering for Quayside, 2019.

CHAPTER 3

Hunt and Capture
Google Street View and the Smart City

> "Google is a shape-shifter, but each shape harbors the same aim: to hunt and capture raw material. *Baby, won't you ride my car? Talk to my phone? Wear my shirt? Use my map*?"
>
> —Shoshana Zuboff, *The Age of Surveillance Capitalism*

To understand the contemporary entanglement of imaging technologies such as Google Street View with both the superficial rhetoric of interactivity and conditions of urban disinvestment, we need look no further than Google's parent company, Alphabet. While one branch of the company sends out roving cars to photograph and re-photograph streets to be uploaded to Google Street View, another, Sidewalk Labs—Alphabet's urban tech arm—has a hand in producing those very streets. Most notably, Sidewalk is developing a neighborhood in Toronto that is has termed Quayside (Figure 21). Sidewalk's founder, Dan Doctoroff, put the project's goals simply: "What would a city look like if you started from scratch in the internet era—if you built a city 'from the internet up?'"[66] Those of us outside of Toronto will not know the answer to this question until we can navigate Quayside from our home computers. If the way we digitally visualize the built environment and the way it is developed have always been intertwined (as we saw through Muybridge in Chapter One and through the institutional networks of Chapter Two), the pursuits have now coalesced under one corporate umbrella. This chapter will examine Alphabet's tandem projects: making and representing cities.

Of course, Alphabet's impact on cities started long before Sidewalk formed in 2015.[67] Rents had been rising in the Bay Area since the tech boom of the early aughts; we can see the architectural impacts of speculation in both the Googleplex in Mountain View, California and in the shantytowns that now surround the Bay Area, to which teachers and other non-millionaires have since been relegated.[68] But the introduction of Alphabet's concretely defined urban tech cabal signals a more explicit focus on the development of cities beyond its headquarters. Tech corporations, however, are not interested in cities writ large, or in reforming the prickly

66 Daniel Doctoroff, "Reimagining Cities from the Internet up," *Medium*, November 3, 2016.

67 Steve Lohr, "Sidewalk Labs, a Start-Up Created by Google, Has Bold Aims to Improve City Living," *The New York Times*, June 10, 2015.

68 Alexis Madrigal, "San Francisco, the City that the Apps Built, or Destroyed," *The Atlantic*, April 19, 2019; Heather Knight, "SF Teacher's Housing Nightmare: Waking at 3:30 a.m. to Drive from Sacramento Home," *San Francisco Chronicle*, October 29, 2019.

underpinnings of bureaucracy and infrastructure that hold together existing American cities. Rather, today's tech giants are committed to building "smart cities" on an urban slate they assume, almost always incorrectly, to be blank.[69] These new instantiations of technology as it determines urban life share a number of presumptions with the cybernetics I outlined in the previous chapter. Namely, smart city rhetoric and cybernetics both hinge on the contention that cities can be improved by computing and self-regulation in place of policy, and both rely on intertwined corporate, military, university, and urban planning institutions and interests.

In Chapter Two, we traced the transition from urban renewal to cybernetic planning. In this chapter, we will see how that evolution produced the ideology of today's smart cities, naturalizing technology as the only possible solution to urban problems and, in turn, curbing the power of people to shape their own urban futures. This drastic shift over the last half-century has profound implications for Rickard's re-peopled photographs. But to get to his work, we first need to examine how people were evacuated in the techno-utopian turn of urban planning and mapping to begin with.

The Freedom of Incursion

Shoshanna Zuboff's authoritative account of surveillance capitalism gives context for the birth of both the smart city and Google Street View, two examples of her broader analysis of the mechanics of tech monopolies, and the two developments I trace in this chapter. Google's business model, explains Zuboff, relies on privacy incursions as the first step in "behavioral surplus accumulation," or the gathering of personal data for profit.[70] Following the launch of Google Street View in 2007, the company began driving its cars down public right of way worldwide. Although Google did not ask permission to photograph the world's public spaces, accumulating visual data did not yet constitute criminal behavior. In 2010, however, by the time Street View had already been operation for three years, the German Federal Commission for Data Protection revealed the true nature of the Street View project: Google was gathering information from private WiFi signals at the houses and businesses they drove by, culling "names, telephone numbers, passwords, messages, emails and chat transcripts, as well as records of online dating, pornography, browsing behavior, medical information, location data, photos, video, and audio files."[71] The mapping project, in fact, was far more insidious, and expansive, than simple charting streets; Google Maps was trying to map the desires and preferences of all the people (i.e., consumers) on Earth. As the innocuous (if megalomaniacal) project to photograph the whole world became unlawful, the American federal government remained paralyzed to catch up to the speed and breadth of Google's incursions, attempting to regulate the corporation years after it had already photographed and data-mined whole continents.

69 Shannon Mattern, "A City Is Not a Computer," *Places Journal*, February 2017, https://doi.org/10.22269/170207.

70 Shoshanna Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power* (New York: PublicAffairs, 2018), 130– 133.

71 Ibid., 144.

Although citizens have rightfully raised concerns about privacy in response to personal data gathering, there is no denying that the massive scale datafication of people and infrastructure in the smart city has had transformative implications for urban quality of life. Today, customers receive real-time updates about the status of their Amazon package delivery, tracking their driver on a digital map. Tomorrow, we will do the same with garbage trucks as 'smart' technology bleeds from private into public services. And, of course, it is difficult to fully account for the pervasive impact of Google Maps's navigation services on smartphone users' quality of life. The problem of surveillance capitalism, then, as Zuboff articulates, is not that improvements to everyday challenges come at the expense of privacy. The kind of access that Google gives us to our information pales in comparison to the amount of information they actually have. Therefore, it is that the very *goodness* of technology and the improvements it engenders that gives corporations like Google the right to control urban futures. Zuboff explains:

> Surveillance capitalists know everything *about us* whereas their operations are designed to be unknowable *to us*. They accumulate vast domains of new knowledge *from us*, but not *for us*. They predict our futures for the sake of others' gain, not ours. As long as surveillance capitalism and its behavioral futures markets are allowed to thrive, ownership of the new means of behavioral modification eclipses ownership of the means of production as the fountainhead of capitalist wealth and power in the twenty-first century.[72]

In simpler terms, "Who knows? Who decides? Who decides who decides?" I have reproduced these questions, which Zuboff uses as a framework for understanding surveillance capitalism, to guide my below discussion of the mechanics of smart cities. By way of answering them, we should remember that if Google does not ask permission to invade privacy, it certainly does not ask what values citizens think should shape the future of our cities.

Smart Cities: The Front End

The privatized data-gathering that motivated Google Street View's incursions likewise defines the brick-and-mortar city. Smart city developments, from Toronto to New York City, rely on personal and infrastructural data accumulation. Per Sidewalk Labs's 1,500 page plan for Quayside, when finished the neighborhood will be replete with "streets laid with a dynamic modular paving system,...pneumatic trash collectors whisking recyclables away into underground tubes, and a 'weather mitigation system' that will use a network of retractable awnings to keep public spaces bustling in cold or rainy weather."[73] But it is not merely technology that makes the smart city smart; rather, a suite of strategies allows Alphabet's data-to-profit model to function particularly well in an urban space of its own design. In particular, theories of feedback, deferral via demo, liberation from regulation, and imagined crises sustain the tech empire at the expense of democratic participation.

72 Ibid., 11.

73 Alissa Walker, "Here is Sidewalk Lab's Big Plan for Toronto," *Curbed*, June 24, 2019, https://www.curbed.com/2019/6/24/18715669/sidewalk-labs-toronto-alphabet-google-quayside.

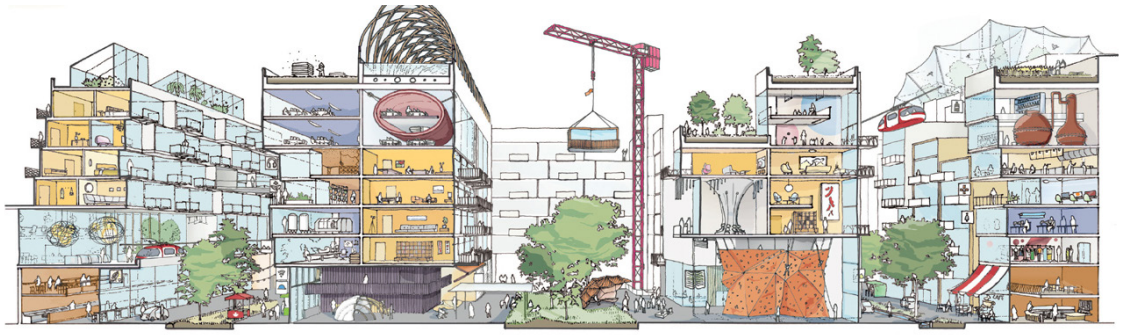

Fig 22. Sidewalk Labs, early visualizations of Quayside, from Sidewalk Labs's response to RFP, 2017.

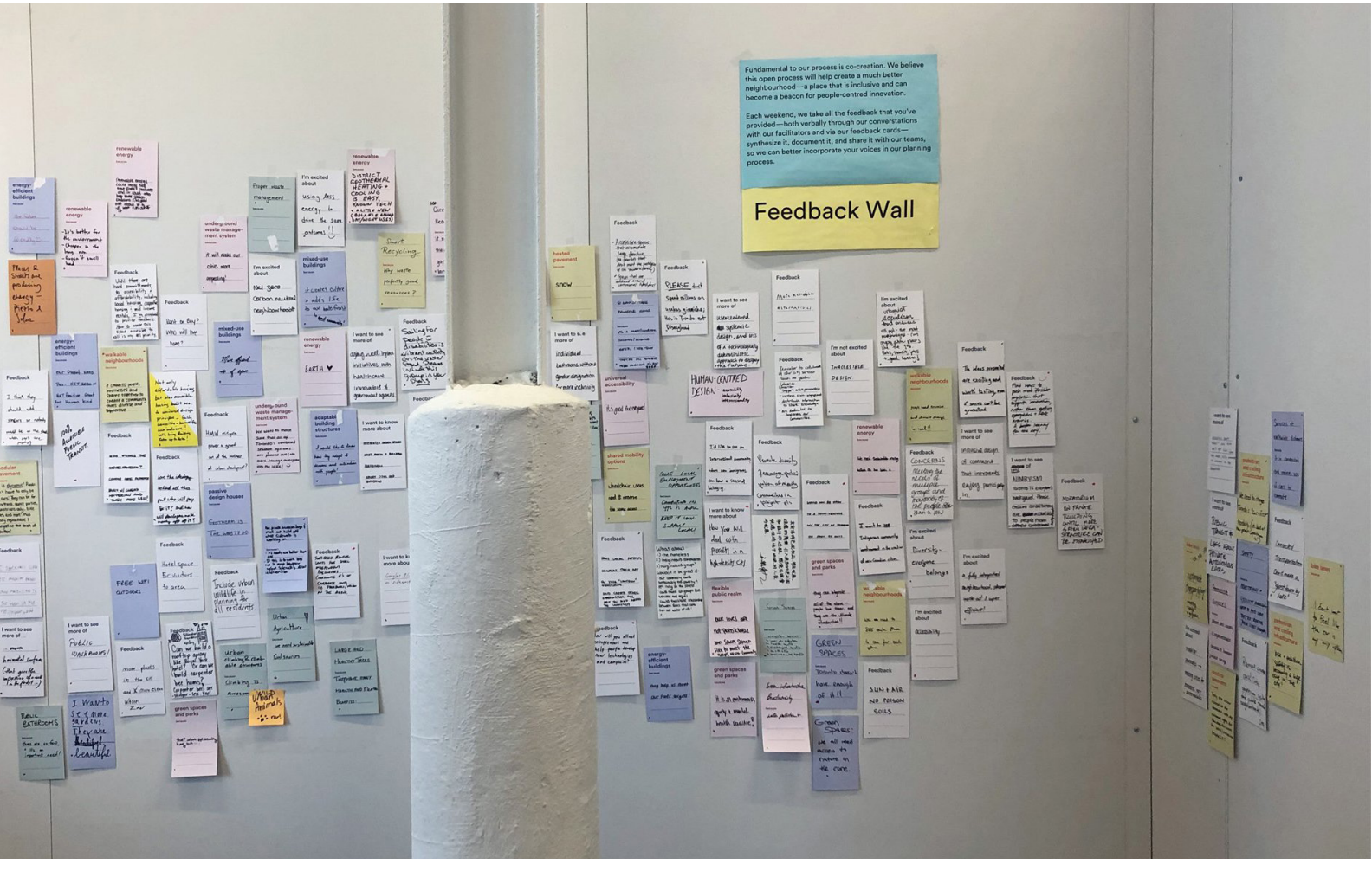

Fig. 23. Shannon Mattern, Sidewalk Labs's Toronto Office, 2019.

Figure 25. Arup (engineering firm), "This is Your City" dashboard, from *Melbourne Smart City* plan.

Fig. 24. Shannon Mattern, Sidewalk Labs's Toronto Office, 2019.

Some of these strategies should sound familiar. Principles of feedback—crucial to Forrester's anti-regulation city—are here made possible by a digital network of information-gathering machines. Smart cities are designed to collect large amounts of data on human usage of the city, which are fed back into the systems that regulate the built environment. Take Shannon Mattern's description of Quayside, Toronto, where a live map is slated to manage this process:

> In the draft Master Innovation and Development Plan, released last June, Sidewalk describes its intention to create a 'high-resolution, 3D, comprehensive digital map of the public realm,' which would serve as a 'single repository for information about open spaces and related infrastructure, creating a shared foundation for ongoing operations and proactive maintenance.' This miraculous map, updated continuously via data collected by sensors, personal devices, and 'open-space managers,' would include public spaces, from parks to public libraries; amenities and physical infrastructures, from benches to playground equipment; utility systems, such as stormwater pipes and power grids; 'shared participatory infrastructure,' like electrical outlets, public speakers, water fountains, Wi-Fi, and picnic tables; and technology that projects information and artwork on city surfaces. That system would, in turn, 'scale out' as an urban prototype for implementation in cities around the world.[74]

The rhetoric of smart cities, as we see here, focuses largely on their smartness—all that they know. But what, specifically, does the technology that undergirds the smart city *do*? The answer arises if we consider that information-gathering at any scale is never neutral. Data gathered at the enormous scale enabled by smart cities learns from itself to determine how the city should develop, enacting those data-based reforms in the future. Per the smart city paradigm, which developments like Quayside model, urban planners rely increasingly on numeric calculation, which not only can be mobilized for profit, but also systematically excludes any other calculations, such as the perceived public good, when determining how cities should look, feel, and function. Profit-motive and efficiency are the *only* values programmed into the smart city. In the cases of Hudson Yards, Quayside, and many other early-stage smart cities, those planners are often tech corporations acting as real estate developers more often than they are public servants working in the public interest. We should remember that the smart city is not defined only by its technology but by a more complex system wherein people serve as passive data points, not as active civic participants. Indeed, it in *ideology*, not in *technology* itself, where the problems of the smart city arise.

Media historian Orit Halpern traces the birth of smart cities like these to the Aspen Movie Map. In particular, Halpern points to the notion of the "demo" as central to both a technology such as the Aspen Movie Map and today's smart cities. For example, Nicholas Negroponte's *The Architecture Machine: Towards a More Human Environment*, a key text that occasioned the influx of computing into the fields of urban planning and architecture, produced "an emergent

74 Mattern, "Post-it Note City," *Places*.

do-it-yourself ethos in the design fields that started in the late 1960s and early 1970s and continues today as an ethic not of expertise but of constant experimenting, versioning, and what we might now label 'hacking.'"[75] Demoing produced the Aspen Movie Map, whose interface was continually tweaked—across universities and corporations—until it became today's iteration of Google Street View, which itself continues to be updated with new features and imagery.

In the same way, the development of smart cities, as Mattern shows, relies on constant gathering of data and re-adaptation in response to those data. Flexibility and adaptation are seen to be a natural, normal, and ubiquitous social good. Mattern, however, is clear that there is nothing neutral about this process. For her, demoing—be it of a map or city—constitutes what she terms "methodolatry" (idolatry of methodology), wherein researchers and programmers conduct endless data-gathering and testing in the absence of a concrete vision for how this information will ultimately be deployed. Isolating concerns of methodology and "[focusing] only on measurement for measurement's sake" forms the foundation of the smart city.[76] As Halpern explains, demoing is a way for tech corporations to avoid defining their political ideology, replacing these precise concerns with the vagaries of the test bed.[77] The always-central focus on technology, then, naturalizes efficiency and profit at the expense of any other values that might shape a city, such as equity. But where the Aspen Movie Map resisted control and re-asserted individual *freedom* through the user within the cybernetic system, the language and politics of *adaptation* govern smart cities and their respective imaging technologies today.

Importantly, then, Mattern's criticism of "mapwashing" sees Sidewalk's emphasis on public input—through post-its, printed and drawable maps, and other collaborative analogue technologies at its Toronto offices (Figures 22–24)—as a way to signal interest in public opinion without it producing material change in planning.[78] Mapwashing is effectively achieved through scale: The scale of the information outsizes the scale of the input, rendering the activity of the user, which is experienced as active, in fact a passive resource to be used by the system of information itself. The demo model subsumes public input as Forrester's systems thinking did policy changes. What matters is not what people want or need, but a kind of war-room management of an always-impending crisis, this time translated into the "city dashboard," a tool developed by the engineering firm Arup that allows planners to see constant real-time data and maps of their cities (Figure 25).

75 Halpern, "Architecture as Machine," 136.

76 Shannon Mattern, "Methodolatry and the Art of Measure," *Places Journal,* November 2013, https://placesjournal.org/article/methodolatry-and-the-art-of-measure/.

77 Orit Halpern, Robert Mitchell, and Bernard Dionysius Geoghegan, "The Smartness Mandate: Notes Towards a Critique," *Grey Room* 68 (Summer 2017): 106– 129.

78 Mattern, "Post-it Note City," Places; Biana Wiley, an activist at the forefront of anti-Sidewalk advocacy in Toronto, uses the term "engagement theatre" to refer to the same process Mattern and Halpern describe, in which public input into design and development processes is largely ineffectual.

The language of crisis management is also familiar. As Halpern writes, "smartness is predicated on an imaginary 'crisis' that is to be managed through a massive increase in sensing devices, which in turn purportedly enable self-organization and constant self-modulating and self-updating systems."[79] Just as consultants brought digital simulations to urban planning departments in the 1970s to mediate the so-called urban crisis of that era, 'smart' planning today is meant to respond to ongoing global crises, such as climate change. Ideological continuity between these periods, however, does not preclude technological particularities in each era. Specifically, as Halpern notes, demos and simulations are the descendants of the "systems of artificial intelligence and professional expertise and calculation imagined by Cold War rationalists."[80] Likewise, the binary of control versus freedom that defined that era has been reimagined as "a self-regulating process of 'optimization' and 'resilience.'"[81] Google Street View, of course, reproduces the current urban environment so as to influence its future.[82]

In Mattern and Halpern's critiques of smartness, we begin to see how the individualized adaptability of Google Street View is merely a step along the way to Alphabet's always-paramount profit motive. In each of the mechanisms that seeks to sustain the data-to-profit empire—feedback, demo, liberation from regulation, and crisis management—interactivity replaces citizen engagement. People participate passively as data points; the demo and its mapwashing reduce input to a farce; safeguards against regulation make democratic dissent largely meaningless; and the impending crisis forces laypeople to surrender control to the experts.

Smart Cities: The Back End

The data-to-profit enterprise centers interactivity at the expense of more meaningful forms of engagement. In turn, any call for equity is quashed as wealthy and powerful citizens can hide from the worst privacy incursions and deflect the negative effects of smart city development onto the poorest. When engagement becomes a farce and regulation an afterthought, profit motives always eclipse social good.

Consider, for example, where the data incursion takes place. Wealthy and politically powerful nations and communities have been the foci of resistance to privacy incursions. Early demonstrations against Google Street View were mounted in Germany, where the government

79 Halpern et. al, "Smartness Mandate," 115.

80 Halpern et. al, "Smartness Mandate," 110.

81 Ibid.

82 A survey of urban planning best practices literature reveals the deep penetration of Google Street View in contemporary planning. Planning textbooks evince the phenomenon. From the US Department of Housing and Urban Development: Nicholas Wise, "Spatial Experiences: Using Google Earth To Locate Meanings Pertinent to Sense of Place," *Cityscape* 17, no. 1 (January 2015): 141– 50; From architects and planners for the MIT Sensable Cities Lab: Xiaojiang Li and Carlo Ratti, "Using Google Street View for Street-Level Urban Form Analysis, a Case Study in Cambridge, Massachusetts," in *The Mathematics of Urban Morphology* ed. Luca D'Acci (New York: Springer, 2019), 457–470; and for a summary of the trend, Michael Blading, "Scientists are using Google Street View to Watch Cities Improve in Real Time," Quartz, August 27, 2017, https://qz.com/1056439/scientists-are-using-google-street-view-to-watch-cities-improve-in-real-time/.

Figure 26. Screenshot by author Brentwood, Los Angeles on Google Street View, March 2019.

has since outlawed the tool, and the United Kingdom, where an assembly of angry citizens blocked the cars from entering an English village.[83] In the United States, a similar iteration of the same trend has taken hold more incidentally. In the wealthy hills of Southern California, for example, urban life has been so fortified against incursion by the less well-off that it is fortified against Google's cameras, too. As urban theorist Mike Davis has written of Los Angeles's wealthy Westside, "architectural ramparts," private security, and public policing are "invisible signs warning off the underclass." [84] Digitally walking down these streets via Google Street View proves exceedingly uninteresting, as each house is wrapped in a fence too high for Google's eight-foot-tall cameras to see across. Invariably, the only people visible in the street are thousands of day laborers who work to maintain these private estates (Figure 26). To a lesser extent, most middle-class American suburbs follow a similar trend, with life exiled to the home, the car, the mall, the office. The disinvested urban neighborhoods Rickard shows in *A New American Picture*, then, are some of the only places in the United States where life remains public and takes hold in the street. This is what scholar of surveillance Simone Brown has called "the facticity of surveillance to black life," from slave patrol to stop and frisk—an inability to hide behind fences or from Google's eye.[85]

83 Zuboff, *The Age of Surveillance Capitalism*, 143.

84 Mike Davis, "Fortress LA" in *City of Quartz* (New York: Verso, 1990), 202.

85 Simone Browne, *Dark Matters: On the Surveillance of Blackness* (Durham, NC: Duke University Press, 2015), 7. Unlike Rickard, who amplifies visibility, many other contemporary artists, following Édouard Glissant, have countered the surveillance of marginalized groups through strategies of opacity. Because marginalized status is made visible and marked under the surveillance apparatus, methods of *hiding* have become central to the work of artists such as Zach Blas, Hito Steyerl, and Sondra Perry. Blas's *Facial Weaponization Suite* (2011– 14), for example, involves a mask that makes facial recognition software unable to identify its user.

In the same way, smart cities will not colonize existing wealthy enclaves like those Davis describes. Rather, those communities will employ smartness *against* the poor. Just as cybernetics was meant to solve urban problems with systems and technology, today smartness uses efficiency and data to police, confine, and limit freedom for poor Americans.

Indeed, smartness touches us all, either as its benefactors or as raw material. Although Quayside and Hudson Yards serve as two prototypes of the smart city, they are mere demos of the practices that will, if smart city advocates get their way, trickle down to all cities and all neighborhoods. We have already seen ample instances. In Boston, city planners have partnered with tech companies to create the BetaBlocks project, whose centralized map relies, in Mattern's words, "on the passive participation of objects like stormwater pipes for data gathering."[86] And nationwide, planning departments have bought location-tracked data of from Alphabet's Sidewalk Labs to get a more accurate sense of forms of human movement, such as commute routes.[87] These innovations will potentially make life more efficient and pleasant for those it seeks to benefit; unfortunately, with no driving social mission other than crisis management and efficiency, Alphabet will benefit no one other than those from whom it can profit.

In considering Rickard's work, as we will in the next and final chapter, we must remember that the legacies of post-urban renewal planning are not far gone. When the introduction of simulations like the Aspen Movie Map came at the expense of the livelihood of poor communities, the smart city and its tools—such as Google Street View data—today reproduce and further entrench these same problems, which we see loudly and clearly in Rickard's photographs.

Kevin Rogan examines this relationship between high-end smart cities and their inverse in disinvested urban neighborhoods in his master's thesis, "Anti-Intelligence: A Marxist Critique of the Smart City." Hiding behind Sidewalk's "fastidious depiction of a vibrant quotidian experience" are, of course, its effects on the city of Toronto (rising rents and the expected fallout) but also the tensions (or bonds) even more fundamental to the existence of a place like this—between labor and development, between ecology and industry, between people and utopia.[88] Rogan's critique puts the human toll of Sidewalk's Quayside in no uncertain terms:

> A long history of brutality, atrocity, and terror—the history of capitalism—comes home to roost in the 'post-industrial' technological utopia of Quayside. This statement may seem absurd, but this is by design: '[i]t seems almost too vulgar to evoke human misery as a consequence of war, displacement, and work as part of the hip, cosmopolitan global

86 Mattern, "Post-it Note City," *Places*.

87 Ava Kofman, "Google's Sidewalk Labs Plans to Package and Sell Location Data on Millions of Cell Phones," *The Intercept*, January 28, 2019, https://theintercept.com/2019/01/28/google-alphabet-sidewalk-labs-replica-cellphone-data/.

88 Kevin Rogan, "Anti-Intelligence: A Marxist Critique of the Smart City," (Master's thesis, Parsons School of Design, 2019), 51.

> assemblage that is the main stuff of social theoretical production.' Seething underneath every technological advancement is, in a very literal way, the blood of populations which have been oppressed for centuries; whispered against every proclamation that a new future is here is an ocean of humanity which has been exploited so a chosen elite can enjoy luxury they will never know. The story of Quayside is the story of capitalism, and the story of capitalism is a horror.[89]

If, in Jay Forrester's mid-century vision of the city, the "complex system" absorbed social problems, supposedly solving them through the feedback of an unregulated market, the poor have disappeared entirely from this vision of the future. That is not to say that labor, maintenance, or service have indeed disappeared. Rather, they are taken on at even lower wages in even more far-flung neighborhoods.

In spite of the hype, smart cities remain anomalous manifestations of techno-utopian ideas about data, feedback, and systems governing the city. But the principles they espouse have come to define urban life in the rest of our non-smart cities. While Quayside, Hudson Yards, and a cluster of smart cities in China and India produce one particular relationship between labor and capital accumulation, they also model a political ideology that extends far beyond their borders. As we have seen, the "Smartness Mandate" privileges concerns of crisis management, data gathering, and real-time mapping, which benefit the wealthy—who will, when the rendering becomes reality, enjoy a well-adapted urban environment—and hurt the poor, who will be surveilled, their internet usage and lives watched over to produce the already marginal benefits of personalization for all. Indeed, with a massive cache of WiFi data gathered on trips around the globe, Google Street View engendered better—that is, more personalized—life for its users and for the residents of its smart cities, but at the expense of privacy and, more importantly, quality of life for the people it uses as behavioral surplus.

Rickard's photographs, then, take the shiny tool of corporate futurism and use it to show the back end, its less glamorous effects. In Chapter 4, we will examine how Rickard's images are formed at the nexus of the historical and spatial forces we have discussed here—a methodology that differentiates his work from the genre of Google Street View photography at large.

89 Ibid., 139. Quotations from H. L. T. Quan, *Growth Against Democracy: Savage Developmentalism in the Modern World* (Lanham, MD: Lexington Books, 2012).

Figure 27. Jon Rafman, *Untitled*, 2020.

CHAPTER 4

Glitch Art Reconsidered
Google Street View Photography Today

> "Whereas flânerie existed in relation to moving through the specific architecture of Paris' arcades, media-flânerie is instead the product of new digital movements through software architectures, information highways, data aggregates, and hybrid interfaces."
>
> —Emilio Vavarella, Italian photographer and Google Street View artist

How do artists who take Google as their subject respond to the massive scale of surveillance capitalism? Although the approaches of Google Street View artists vary significantly, they, like so many digital artists, rely on the glitch as a way to sift through massive amounts of visual data. I mean this both literally and theoretically. Jon Rafman's work, for example, frequently fixates on errors: lens flares, duplicate figures, unblurred faces—moments when the physical tool or the algorithm that prepares it for publication has failed (Figure 27). But Rafman also likes subjects who "resist becoming purely objects of the robotic gaze of an automated camera," people who embody emotion, whose lives, not just their visages, are made visual on the map.[90] Both technological and human glitches manifest moments when Google Street View ceases to be merely an agent of data collection, as we understood it in Chapter Three, and instead offers forth a kind of transgression, made visible by the artist's sifting and selection.

The glitch appears in nearly all Google Street View art, in one form or another. Emilio Vavarella's *Report a Problem* shows Street View images that have been improperly stitched together, while *The Drivers* series shows moments when the men who drive Google Street View cars accidentally appear in their images (Figure 28).[91] In a similar vein, German artist Aram Bartholl describes his *15 Seconds of Fame* project like this: "On the morning of October 13, 2009 I had coffee as usual at Cafe MÖRDER, Berlin Mitte. Suddenly the Google Streetview car entered Borsigstrasse. I dropped my spoon, took to the door and ran after it. About a year later on November 18, 2010 Google Streetview Germany went live this spontaneous performance included."[92]

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90 Willy Stanley, "Poaching Memories from Google's Wandering Eye," *New York Times Magazine*, December 16, 2013.

91 Emilio Vavarella, "The Google Trilogy," Emilio Vavarella artist website, published 2012, http://emiliovavarella.com/archive/google-trilogy/driver-and-cameras/

92 Aram Bartholl, "15 Seconds of Fame," Aram Bartholl artist website, published 2010, https://arambartholl.com/15-seconds-of-fame/. I have reproduced this quotation as it appears on Bartholl's website.

Figure 28. Emilio Vavarella, *The Drivers*, 2012.

Rickard's False Glitch

James Bridle, a popular theorist of internet aesthetics, understands Google Street View artists' play with glitches as representative of the so-called New Aesthetic. Coined by Bridle, the New Aesthetic posits that as the borders between the digital and analogue worlds blur, the aesthetics of the former begin to inform the latter. Matthew Battles, Director of the metaLAB at Harvard's Berkman Klein Center for Internet & Society, summarizes Bridle's theory:

> The New Aesthetic is a collaborative attempt to draw a circle around several species of aesthetic activity—including but not limited to drone photography, ubiquitous surveillance, glitch imagery, Streetview photography, 8-bit net nostalgia. Central to the New Aesthetic is a sense that we're learning to "wave at machines"—and that perhaps in their glitchy, buzzy, algorithmic ways, they're beginning to wave back in earnest. [93]

Much of glitch theory rotates around this notion that slippage out of intended use and into an anti-utilitarian, artistic use formulates a transgression against a society in which life seems to be meticulously anticipated and controlled. "Error signals a path of escape from the predictable confines of informatics control: an opening, a virtuality, a *poiesis*," writes Mark Nunes in the introduction to his collection *Error: Glitch, Noise, and Jam in New Media Cultures*.[94] Other scholars, especially those working in queer studies, understand glitch art as politically transgressive. Writes artist and media scholar Andie Shabbar, "glitch art has the capacity to expose and exploit the inherent vulnerabilities and fallibility of recognition technologies," formulating a mechanism to "protest against sexual surveillance."[95]

How does Rickard's *A New American Picture* fit into the glitch model that dominates his genre? For Andreea Breazu, a graduate student at Vrije Universiteit, Amsterdam, whose research focuses on Google Street View photography, the glitch unites all Street View photog

93 Matthew Battles, "But It Moves: the New Aesthetic & Emergent Virtual Taste," metaLAB, Berkman Klein Center for Internet & Society, April 8, 2012, https://web.archive.org/web/20120621155502/http://metalab.harvard.edu/2012/04/but-it-moves-the-new-aesthetic-emergent-virtual-taste/.

94 Mark Nunes, *Error: Glitch, Noise, and Jam in New Media Cultures* (New York: Continuum, 2011), 3.

95 Andie Shabbar, "Queer-Alt-Delete: Glitch Art as Protest Against the Surveillance Cis-tem," *Women's Studies Quarterly* 46, no. 3 & 4 (2018): 195.

raphy, including Rickard's. In Breazu's estimation, the map has sociological import at odds with the corporation's broader data-gathering goals because it documents usually politically powerless neighborhoods:

> Rickard's series suggests that mapping as a means of appropriation is no longer (entirely) accurate, and that "we might begin to see it as a means of emancipation and enablement." This way, mapping could continue to fulfil its 'original entrepreneurial and exploratory character," despite the fact that the planet has long been exhaustively mapped.[96]

In this reading, the potential of Street View to show disinvestment formulates a kind of embarrassing glitch for Google, akin Rafman's images of sex workers on the street in daylight. Indeed, per Google's corporate literature, "Street View Success Stories" include using the program to increase tourism to Bermuda and Zimbabwe; Google, unsurprisingly, does not articulate visualizing suffering in the poorest American neighborhoods with the same zeal.[97] In turn, to deviate from the stated intentions of a corporate product constitutes, for Brezau, a kind of emancipatory transgression—an assertion that life cannot be truly captured by a machine.

But to understand the glitch as a critical intervention is to contend that increasing interactivity between user and image can constitute a departure from the assumptions inherent to big tech. But as we have seen, from the Aspen Movie Map to Google Street View, interactivity and adaptability are in fact central components of the surveillance capitalism empire; these formats do not need people to act perfectly, they simply need to document precisely *how* they behave.[98] As Zuboff reminds us, knowledge is power in these systems, and corporations hold a monopoly over both. Alphabet and Google Street view include humanist conceits that operate only at the level of the interface, shielding the more complex and unequal aspects of the corporation that operate in the so-called "black box." Fiddling with the interface through glitches, then, as most Google Street View artists do, does little to reveal all that hides beneath the surface.

What's more, these readings of the glitch as liberating, providing viewers with a way out of the totalizing system of data visualization and behavioral control, presume a set of oppositions to exist that no longer do—between urban disinvestment and corporate surveillance, between urban problems and their technological solutions. Given this complicated history, the presence of two seemingly at-odds states of being—seen and ignored—does create a glitch for Rickard, as it does for other artists, but a parallelism. For a Rickard photograph to constitute

96 Andreea Breazu, "Discerning the Grain of the Digital: On Render Ghosts and Google Street View," *Kunstlicht* 38, no. 4 (2013): 42.

97 No author, "Take a look at all the Street View mapping success stories," Google Maps, accessed 23 February 2020, https://www.google.com/streetview/success-stories/.

98 That is, Shabbar, Nunes, and other glitch theorists' notion that marginalized groups can use the glitch as a mode of transgression neglects the fact that Google's data-gathering has never rejected marginalized identities; demographic differences do not matter so long as they can be captured.

Fig. 29. Doug Rickard, *#40.805716, Bronx, NY. 2009*, 2011.

a glitch, the people and places it represents would need to deviate in some way from the tool that depicts them. The virtual world in which Rickard's subjects exist on-screen would need to be divorced from the physical world where they live in real life. The history I have examined shows that, while by no means identical, the two worlds are deeply intertwined by way of the digital map.

Consider a number of Rickard's more powerful photographs from *A New American Picture*. In the photograph that serves as the cover of Rickard's book version of the project, a white man in a suit stands on a corner in the Bronx, taking a phone call with his arms crossed (Figure 29). In front of him, a Black man in a backwards baseball cap crosses the street. Behind both figures tower the massive housing projects of the Bronx. In another image, men stare at the Google camera outside of a one-story liquor store in Watts (Figure 30). One man sits on a milk crate, another on the pavement. This is Los Angeles, and there is nowhere to sit. In Baltimore, both a block of rowhomes, with their formstone facades, and two young girls standing in the street are lit purple in the evening light (Figure 31). The girls must stand in the shadow of a house that has been boarded up because there are no trees in sight. In Detroit, three men cross six lanes of traffic on foot (Figure 6). Their proximity to the camera is stunning, given that it is mounted atop a moving car, and they are standing in its way.

Infrastructure, evidently, is inseparable from Rickard's work. It is not just any infrastructure, of course, but the architectural landscape produced by the policy and planning we examined

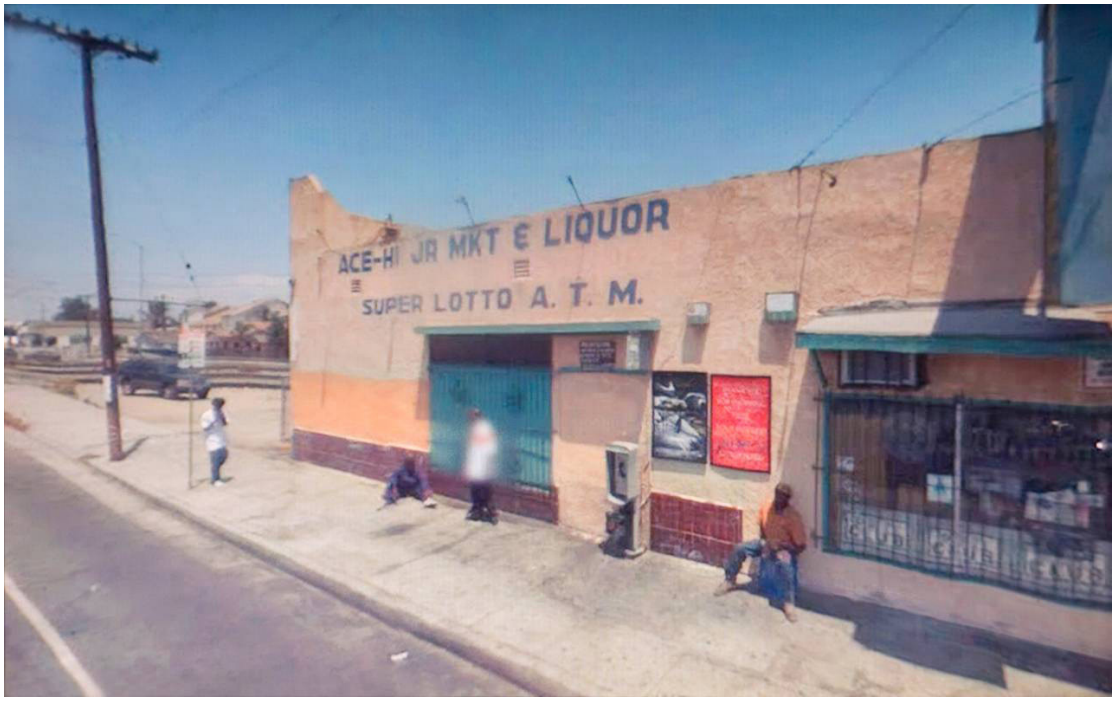

Fig. 30. Doug Rickard, *#33.930037, Los Angeles, CA (2009)*, 2010.

Fig. 31. Doug Rickard, *#39.177833, Baltimore, MD (2008)*, 2011.

in Chapters Two and Three: first, urban renewal in the 1960s, which sliced roads for motor vehicles through the poorest neighborhoods of nearly every American city; then, cybernetic-driven urban planning in the 1970s, which introduced the simulation, allowing planners to all but ignore conditions on the ground; and, finally, the rhetoric and practice of data-driven planning today, which either neglects or bulldozes poor neighborhoods in the name of smartness. As we have seen, each of these periods was driven by similar, if not identical, groups of researchers and planners working in the interest of corporations or the military. These relationships have never been clandestine, but their complexity makes them an open secret. Scholars—such as Turner, Light, Halpern, and Mattern—have therefore taken great pains to illuminate the depth and implications of these hairy partnerships, which can be so difficult to parse. Rickard's work, if we look closely, likewise demonstrates many of these ties.

The Dialectical Image Now

If the intervention mounted by New Aesthetic glitch art, as articulated by Bridle and others, is—true to its name—purely *aesthetic* (but presumed to be political), what might art that hinges on a more legitimately *sociological* glitch entail? The "dialectical image," as Walter Benjamin termed it in his *Arcades Project*, offers an alternative model for the glitch, and helps us understand how images can, at best, reveal seemingly logical, dominant ideologies as illogical, ridiculous, and exploitative—not simply technologically nonfunctioning. As Benjamin walked through Paris's nineteenth-century arcades, manifestations of that day's technological overhauls indexed by photographer Charles Marville, he enacted physically what Rickard today does digitally. To Benjamin, the arcades began to signify the ways material change can impact human subjectivity and interiority. Here, in 1930s Paris, recently hit by the tides of global economic crisis, Benjamin produces his definition of the dialectical image:

> It's not that what is past casts its light on what is present, or what is present its light on the past; rather, image is that wherein what has been comes together in a flash with the now to form a constellation. In other words, the image is dialectics at a standstill.[99]

Benjamin and Rickard's work appeared at similar historic junctures. *A New American Picture* likewise looks back a few decades to a period of economic prosperity and technological innovation in the 1950s and '60s, when the highways and hard concrete of urban renewal and its cybernetic lineages built and ravaged the very street corners Rickard now depicts. At similar moments, Rickard assumes a parallel urban posture to Benjamin, his digital wanderings a kind of twenty-first century *flânerie*.

99 Walter Benjamin, *The Arcades Project*, trans. Howard Eiland and Kevin McLaughlin (Harvard University Press, Cambridge, MA: Belknap Press of Harvard University Press, 1999), 285.

Many have asked what could constitute an *Arcades Project* for the twenty-first century.[100] On the surface, Rickard's work fits the bill. In the arcades, Benjamin encountered precise and jarring moments—"flashes"—when historical events, such as the development of a technology or ideology, came into contact with their physical effects in the built environment. Similarly, for the Google Street View wanderer, the flash appears at certain street corners and strip malls where we recognize the juncture between imaging tools with the respective urban environments they helped produce.[101] Most Google Street View images do not stand at this intersection, specifically because the rhetoric implicit in the digital map did not devastate all neighborhoods in the same way it did the country's poorest; because it did not impact the natural world in precisely the way it did the urban. *A New American Picture* posits that Street View images of Mountain View, California—where Google is headquartered—will not produce the same congruence between medium and content that Street View images of Watts, the Bronx, or Baltimore will.

That is: Rickard's work relies on congruence, not dialectic—functionality, not glitch. As Rickard reminds viewers of the relationship between medium and message, he only ventriloquizes Google's existing logic, which is so endemic and strategic that it permeates both Maps and Sidewalk—both image and city. Unlike Benjamin, who found that images could break through rationalization and routinization to display contradictions and affiliations that the dominant ideology of the period tried to suppress, Rickard can only replicate the logics of surveillance capitalism from which his project is born and on which it thrives.

Post-flash

The history of virtual urban worlding, from the Aspen Movie Map to Google Street View, has relied on the superficial re-insertion of humans and human perspectives to signal freedom, autonomy, and countercultural liberation when indeed the real freedom these maps represented was freedom from regulation. Rickard's reinsertion of humans into the frame, then, is not a strategic maneuver to subvert Google's control. In fact, it is not a reinsertion at all. Rather, Rickard's central strategy of humanizing the urban poor to garner sympathy is merely the artistic equivalent of Google's profit model. In Google's aesthetics, people haven't departed the frame: We still see wealthy citizens flying kites in Quayside's renderings and smiling Bermudan tourism officials in corporate literature. Indeed, it is central to Google's methodology that the corporation be perceived as the pioneer of human-centered technology, as evidenced

100 See "Inventory of a Century: On Walter Benjamin's Arcades Project" in *Difference and Orientation: An Alexander Kluge Reader*, ed. Langston Richard (Ithaca; London: Cornell University Press, 2019), in which Dr. Burkhardt Lindner asks, "Could there be a version of Walter Benjamin's Arcades Project for the twenty-first century?" Street View artist Emilio Vavarella also considers these questions explicitly in his work; see this chapter's epigraph.

101 This reading of Benjamin as concerned with the dialectical union of historical and spatial forces is derived from Susan Buck-Morss, *The Dialectics of Seeing: Walter Benjamin and the Arcades Project,* (Cambridge, MA: MIT Press, 1989), 220.

by their haunting onetime slogan, "don't be evil."[102] But as we have seen, even if figures are still present and smiling, human *autonomy* has certainly vacated the digital premises, replaced by corporate control. Rickard's centering of human narrative, then, in no way subverts or undermines techno-capitalist ideology—it only flimsily rearticulates humanism through the language of photography.

We are reminded of the FSA; the central 'humanizing' mission of that project was limited, as it sought amelioration through sympathy and reform, not systematic intervention to meet the scale of the economic problems at hand during the Great Depression. Rickard's human scale is likewise insufficient as a mechanism of critique to meet the scale of the surveillance capitalism empire; as Rickard crouches down to the scale of the individual person, he renders the very real systematic problems producing the misery he represents all but invisible. Even if there are material differences between Rickard's real and suffering subjects and Google's hollow individualism, Google's "radical indifference" (to use a term from Zuboff) smooths all identity difference to harvest data for profit.

In probing the limits of 'humanizing' as a photographic mode, we might take a lesson from feminist theory. Consider Judith Butler's description of humanization in the context of gender performance:

> Discrete genders are part of what 'humanizes' individuals within contemporary culture; indeed, those who fail to do their gender right are regularly punished. Because there is neither an 'essence' that gender expresses or externalizes nor an objective ideal to which gender aspires; because gender is not a fact, the various acts of gender creates the idea of gender, and without those acts, there would be no gender at all. Gender is, thus, a construction that regularly conceals its genesis. The tacit collective agreement to perform, produce, and sustain discrete and polar genders as cultural fictions is obscured by the credibility of its own production. The authors of gender become entranced by their own fictions whereby the construction compels one's belief in its necessity and naturalness. The historical possibilities materialized through various corporeal styles are nothing other than those punitively regulated cultural fictions that are alternately embodied and disguised under duress.[103]

In Butler's estimation, 'humanized' is not a desired position. Rather, humanization is an unspoken dialogue between spectator and subject, wherein the spectator ascribes gender to the subject (based on any number of performed qualities) in order for the spectator's world-perceptual schemata to continue unperturbed. That is, the subject is forcibly essentialized, when

102 After Google's corporate re-organization and envelopment into Alphabet—and following increasing criticism of the corporation for its user surveillance—they removed the slogan. Mat Honan, "Google's Broken Promise: The End of "Don't Be Evil," Gizmodo, January 24, 2012, https://gizmodo.com/googles-broken-promise-the-end-of-dont-be-evil-5878987.

103 Judith Butler, "Performative Acts and Gender Constitution: An Essay in Phenomenology and Feminist Theory," *Theatre Journal* 40, no. 4 (December 1988): 522.

of course, as Butler instructs above, gender is constituted by having no essence at all. In this sense, being humanized is closer to being stereotyped than it is to being legitimately engaged as a thinking and feeling subject.

Rickard's photographs replicate the dynamic Butler describes. In a relationship founded on principles of humanization, the subject is expected to be one way (following normative gender constructions in Butler's example, conforming to normative class and race roles in Rickard's), but because humanization operates one-directionally (spectator interprets subject), transgression or response in undesirable. Rickard expects his subjects to be miserable and oppressed at the expense of all other states of being (happy or resistant, for example).[104] A potentially generous action—viewer extending sympathy to the subject—becomes objectionable when we remember that the relationship is always one-directional. The viewer, presumed to be wealthier than the subject, is expected to feel a certain charitable emotion to the subject, but the subject can never offer anything in response. If this is the nature of all static photography, Rickard privileges the viewer at the expense of the subject even further by nature of his medium: The early Street View photographs he selects are so low-resolution—so detached and depersonalized—that opportunities for subject-driven narrative are entirely foreclosed.[105]

Here, we also begin to see the limits of interactivity, a process parallel to humanization in which autonomy and freedom operate one-directionally. The user, of Google Street View or the Aspen Movie Map, is thought to have control because of their completely self-driven user experience, but evidently, personalization for the user (or spectator) always comes at the expense of depersonalization (or, algorithmic deidentification) on the end of the subject, who is poor and blurry.

What I offer here is a starkly different reading of Rickard than other critics have put forward. Where dominant narratives about *A New American Picture* position it as an update of the FSA's critique of poverty for the new century, I argue that the FSA's critique was never strong enough to begin with. The very quality that allows Rickard's work to be understood as politically evocative—that it can humanize poverty despite using a tool that seeks to smooth difference with a machine gaze—has only become more politically useless with time. Economic inequality has

104 And in fact, Rickard selects *only* subjects who fit these stereotypes—yet another reminder that humanization works on the axis of victimhood, not whole personhood.

105 Bulter's critique of humanization in the context of gender performance is part of a much larger discourse critiquing empathy, grounded in affect and feminist theory, and particularly in the work of Lauren Berlant. Berlant understands empathy, when extended to victims of traumatic, identity-based violence, as a limiting legal framework insofar as it posits that reparations for violence are achievable only through corrective legislation. The source of violence—the state that excluded certain people from full citizenship—becomes the pathway to condolence. Instead of taking suffering to show what one *already* knows—that she is a victim deserving sympathy—Berlant advocates using trauma to reveal what one *does not* know—that is, precisely which political ideologies produced her suffering. We can understand Rickard's sympathy-based work (and the FSA, for that matter) as liberal, reparation-based correctivism that always returns to its perpetrator for support; Rickard suggests no recourse for understanding what has caused the suffering his subjects experience and that he represents. See Berlant, "The Subject of True Feeling," in *Transformations: Thinking through Feminism*, ed. Beverley Skeggs, Celia Lury, and Sara Ahmed (Abingdon-on-Thames: Routledge, 2000), 33– 47.

grown and gone digital in the hundred years since the FSA, expanding new networks of power and intensifying capitalist exploitation. It is not, and likely never was, enough to point to the problems of poverty.

The artist Martha Rosler foreshadowed the development of liberal social documentary photography into a less recognizably establishment form of photography nevertheless complicit—as Rickard is—in the forms of oppression it seems to critique. In 1981, Rosler wrote:

> The liberal New Deal state has been dismantled piece by piece. The War on Poverty has been called off. Utopia has been abandoned, and liberalism itself has been deserted. Its vision of moral idealism spurring general social concern has been replaced with a mean-minded Spencerian sociobiology that suggests, among other things, that the poor may be poor through lack of merit. . . .Yet documentary still exists, still functions socially in one way or another. Liberalism may have been routed, but its cultural expressions still survive. This mainstream documentary has achieved legitimacy and has a decidedly ritualistic character. It begins in glossy magazines and books, occasionally in newspapers, and becomes more expensive as it moves into art galleries.[106]

We might understand *A New American Picture* as the newest instantiation of Rosler's critique. Rickard's work parrots not only humanization but also interactivity; it rehearses not only the social relationships enforced under surveillance capitalism, but, in this digital update, relies on the technologies that legitimated these forms of class hierarchy.

As I have shown in this thesis, however, engaging Rickard's work is a powerful exercise for a very different reason: It allows us to see, through the congruence of medium and message, the historical intertwinement of imaging with development, of digital surveillance with disinvestment. Rickard's work also, haphazardly, lays bare the twin limits of humanism and interactivity. As Rebecca Solnit wrote of railroads and photography in the nineteenth century, these new technologies "brought the world closer for those who looked."[107] The same could certainly be said of Google Street View, the remarkable digital tool that creates a false sense of closeness for so many of us. The same could be said of *A New American Picture,* too. Routed through the dehumanizing corporate imaging tool and then forcibly re-humanized, the series cannot legitimately or responsibly bring poor urban life closer to well-off museum and gallery-goers. Rickard's work can, however, reveal the very mechanics of digital urbanism—for those who look.

106 Rosler, "In, Around, and Afterthoughts," 178.
107 Solnit, *River of Shadows*, 17.

CONCLUSION:
Digital Fun

Google Street View is here, now, and it offers a massive, and quite powerful, visual encyclopedia. It is a technology that utterly begs artistic response. *A New American Picture* is a useful interpretation of this mandate insofar as it points, as I have argued, to a historical consonance rather than a glitchy aesthetic dissonance. But all Rickard can do is despair in the problem he allows us to see; *A New American Picture* offers no politically viable alternative to our situation, to how we might be able to live with—or beyond—this haunting flash.

What would it look like to use a tool of digital surveillance to create art that *does not* capitulate to the unfortunate facticity of surveillance to digital life—that does not anguish in the relationship between immersive mapping and the urban environment? For Hito Steyerl, the answer to this question is not to go analogue, relinquishing the digital world altogether. Rather, she sees a utopian promise in the circulation of "poor images," such as Street View screenshots, on the web. Unlike fine art, defined by its author and beholden to networks of philanthropic capital, the poor image is a low-quality file that moves freely and democratically online:

> The poor image thus constructs anonymous global networks just as it creates a shared history. It builds alliances as it travels, provokes translation or mistranslation, and creates new publics and debates. By losing its visual substance it recovers some of its political punch and creates a new aura around it. This aura is no longer based on the permanence of the "original," but on the transience of the copy. It is no longer anchored within a classical public sphere mediated and supported by the frame of the nation state or corporation, but floats on the surface of temporary and dubious data pools. By drifting away from the vaults of cinema, it is propelled onto new and ephemeral screens stitched together by the desires of dispersed spectators.[108]

The internet, then, is a site of triumph against the very problems its corporate giants produced. Per Steyerl's paradigm, an adequate critique of Google necessarily emerges from the technology itself, rather than in the 'art world' outside of it; a critique of the web from inside is self-governed, accessible, and relevant. Rickard's work does not quite fit the bill. Displayed in galleries in New York and Los Angeles, valued at a few thousand apiece, and purposefully divorced from their original internet context, the images that populate *A New American Picture* posture as

108 Hito Steyerl, "In Defense of the Poor Image," *e-flux journal* #10, November 2009, https://www.e-flux.com/journal/10/61362/in-defense-of-the-poor-image/.

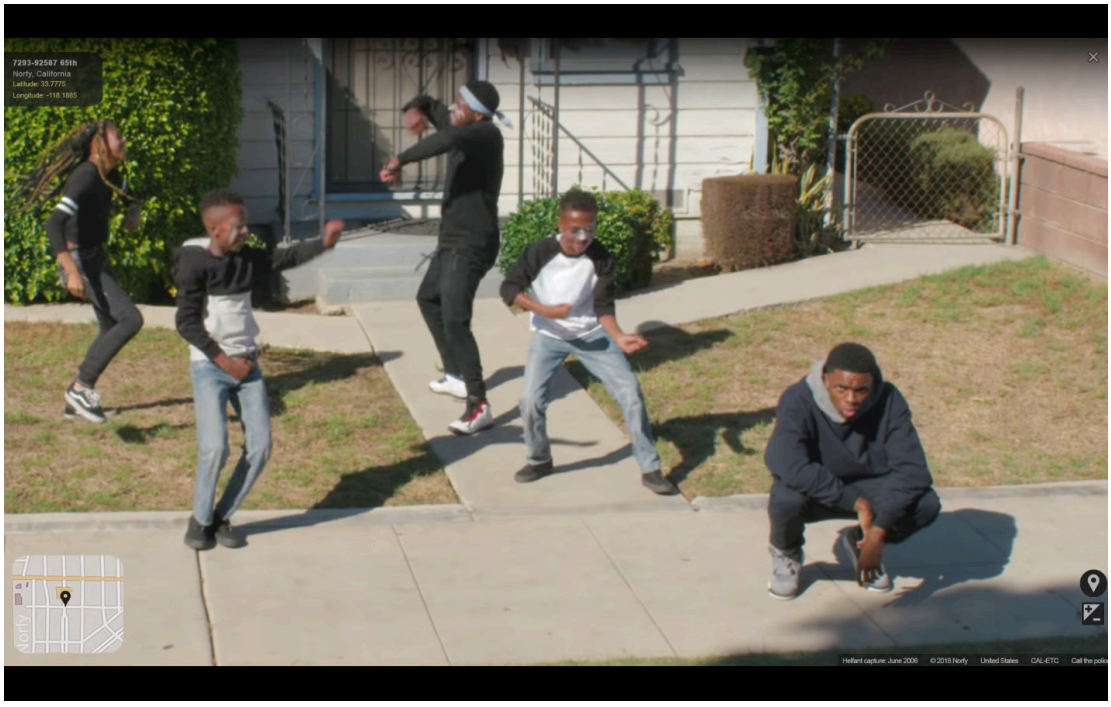

Fig. 32. Still from Calmatic "FUN!" Music video, 2018.

fine art, attempt to produce poetry of poverty and the death of our neighborhoods (despite the living people who continue to inhabit them), and wedge humanity into a technology whose problem was never its anti-humanness.

To respond more appropriately to Steyerl's mandate, images must be popular and born digital. It is fitting, then, that the project I see as the most powerful instantiation of the utopian promise of the poor image is not one that imagines a world without surveillance capitalism. Rather, it finds a different way of living under "a process that designs humanity as a uniform" by refusing digital uniformity outright.[109] It is work born within the confines of the digital empire: It is a music video by rapper Vince Staples (Figure 31).

Directed by Calmatic, a filmmaker from South-Central Los Angeles, the video that accompanies Staples's 2018 song "FUN!" depicts Ramona Park in Long Beach, where Staples grew up, as seen through Google Street View (Figure 32). But in this version of the technology, the streets of Ramona Park aren't quite Google's, nor are they the streets we know in the real world. In this iteration of digital mapping, people—young Black men, women, and children—

109 Hito Steyerl, *Duty Free Art: Art in the Age of Planetary Civil War* (New York: Verso, 2017), 18.

have digitally visual lives that are both dynamic and devastating, overpoliced and fun. They have unblurred faces and moving, living bodies, not the frozen, blurred ones they would on Google Street View. Over the course of the music video, they light a vigil for a shooting, throw things at the Street View camera, get in a street fight that an onlooker records on her phone, play double dutch, and steal a white neighbor's bicycle. They also steal her phone, which she's using to call the police, who then arrive and arrest Staples and his peers. They do it all in the space of an alternative Google Street View until, at the very end of the video, the user who's been navigating the scene is revealed: He's a tweenage white boy sitting in his room on his laptop. The video ends when his mother calls him to dinner. As if afraid someone will think his virtual wanderings improper, he quickly shuts his laptop, and the video cuts to black.[110]

Astonishingly, Staples and Calmatic do not abandon the map altogether. They remain tethered to surveillance, a reminder that poor, Black urban life, when it reaches the white middle class, is so often mediated through that form. Urban life in Ramona Park is certainly not entirely self-determined, but when viewed through the tool of Calamatic's rather than Google's making, its perception, at least, can be. "FUN!" recognizes the failure of the justice system and the devastation of gun violence, for example, while also offering an alternative to total subsumption into the digital system. Staples posits a kind of lived autonomy, but it's not the same farce of freedom produced by the corporate map. That is, "FUN!" does what *A New American Picture* cannot, revealing the epistemological limits of Google Street View rather than re-inscribing those we already know to be true. In its fantastical reproduction rather than strict appropriation of Google Street View, the video imbues the digital map with a liveliness—not just humanity—of which it is so often devoid. It over-performs the same fantasy of poverty upon which Rickard's work relies, while undercutting it with a wink. In this version, subjects have more power than their cowering spectator; on this new kind of map, only slightly different from the one we know, a new kind of life emerges.

If "FUN!" offers an alternative lifeworld, one wherein digital surveillance is reimagined and reclaimed, Rickard's work is maddening and fascinating precisely because of its inability to get away from tired, often racist, ideas about poverty—ideas about sympathy and humanization that do little good in an era when techno-capitalism no longer operates on the scale of the human, although its proponents would like us to believe as much. *A New American Picture* is revealing beyond the borders of art history, too, because Rickard's mode of engagement with surveillance capitalism is an all too common one. We might even think of the white teenager in "FUN!" as a Rickard-esque figure, a digital flaneur of Black urban life.

I do not mean to chide Rickard *personally* for his way of using the internet. That is precisely the kind of critique I find insufficient. In fact, this project is derived from my own fascination with Google Street View as a user, not a critic. Likewise, many of the ideological positions and

110 Calmatic, "FUN!" performed by Vince Staples (2018; Los Angeles: Conway Recording Studios, 2018), music video.

artistic practices I critique in this thesis have proven at times compelling to me. In particular, I think often of the non-hierarchical communes of the 1960s and '70s as a model for slipping out of capitalism, as a way of finding personal transcendence and perhaps even freedom. But if systems thinking for the cybernetic researchers and artists at midcentury meant letting systems regulate themselves, there is another world in which thinking in terms of systems privileges *intervention* when those very systems fail. What this project has shown me, and I hope my readers, is the folly of vagueness and the absolute and irreplaceable necessity of what Fred Turner calls "the politics of struggle."

I introduce a music video here, at the end of this project, to underscore that images can indeed be the terrain of this struggle. Especially when the struggle is subverting the logic of technology, a work that asserts alternative ways of living into a tool so focused on indexical rationality can be liberating. In fact, this particular image assumes the opposite posture of the New Communalists, whose ideas formed the ideological basis for Silicon Valley. Rather than fleeing the all-encompassing problems of techno-capitalism—and its offspring in labor exploitation, environmental degradation, and urban segregation—"FUN!" leans into them, head on. In so doing, it helps us remember the value of irony, dance, humor, the pursuit of justice, and the vivacity of urban life, even as it slips away. Especially in the period of isolation from which I write, the map, and the digital world more broadly, begins to feel like all we know—like life itself. At its best, Google Street View art can remind of how much has been left off of the map.

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