

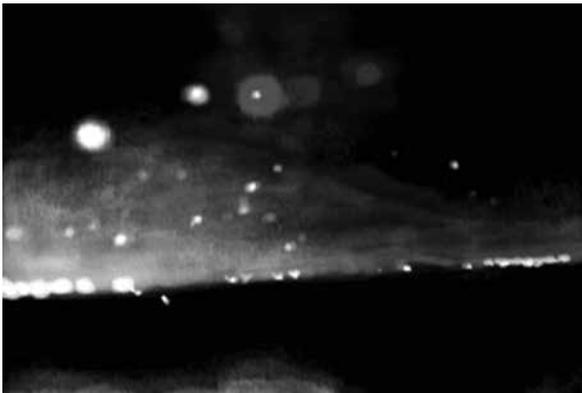
Note to the Reader: This essay is an excerpt from the book *Incendiary Traces: Hillary Mushkin*, published by Pomona College Museum of Art in conjunction with the 2017 exhibition "Project Series 51: Incendiary Traces."

**The Intimate Technology  
of Remote Vision**

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Hillary Mushkin, *The Sleep of Reason*, 2003  
Stills from video with color  
and sound, 7 mins.

Fireworks bloom over the nestled hills of a darkened city. They rise and crest, retract and disappear with subtly precise rhythm, streaking the skyline in red, white, and smoke. They are somehow sinister in their isolation—a piercing advance guard approaching from the dark. Over the course of minutes, they merge seamlessly into abstraction. The chromatic spectrum saps to black and white. The pointillist tracings of blooms and tails render to watery grayscale. At first, it's difficult to tell whether we've simply lost focus, camera caught in nondescript middle-distance, vision drifting into somnolence. The skyline, however, remains the same, a horizon anchoring the view. In a few minutes more, the scene begins to resolve. Patches of light stain sickly green. Arcing contrails return, illuminating a horizon-shift to rooftops. All is not well. The joyous sound of crackling turns to a screech; the decrescendo of a slow fall becomes reverb upon impact. Fireworks have become bombs. One more change washes over: whirling discs of light circle the screen, then retract, light gagging and consuming itself back into darkness, a dream absorbed to its origins in consciousness. The sound devolves to baseline fuzz, encompassing a wide range of heterogeneous action into a white noise whose simultaneity eclipses the senses.

This is Hillary Mushkin's 2003 video *The Sleep of Reason*, a work named after the well-known print from Francisco de Goya's *Caprichos* series (1797–99). Both stage the rational world dissolving into chaos in times of deep geopolitical conflict.<sup>1</sup> In Goya's original, the chaos is allegorical: an artist is asleep over his paper as bats, cats, and owls creep over his crumpled body, their eyes wide and hungry. In Mushkin's, the chaos is recorded: celebrations morphing into air assaults. In turn-of-the-nineteenth-century Spain, folly and willful ignorance characterized national ideology, as the monarchy fought for access to its colonial territories in the Anglo-Spanish war. Mushkin's new millennium sees proxy wars fought over access to global commodity reserves in the faraway theaters of Iraq and Afghanistan. While Goya's print

uses iconography to mediate fear as a consequence of inaction, Mushkin uses both raw footage of actual events and abstract animation to blend politics and conflict between reason and chaos. Terror and exuberance, darkness and danger appear from the distant edge of consciousness, hidden in plain sight.

Today, technology shapes vision and narrative meaning with an immediacy that makes it functionally invisible. For Mushkin, this became particularly evident within the context of Operation Desert Storm, the United States-led, NATO-backed invasion of Iraq following its takeover of Kuwait's oil fields in 1990. Operation Desert Storm, and its 1991 opening air assault on Baghdad in particular, was the first war to be broadcast live in a 24-hour format.<sup>2</sup> The night-vision footage of the air assault and counter-strikes that Mushkin uses in *The Sleep of Reason* appeared on CNN. Filmed with military cameras mounted on aircraft and stationed on rooftops, the footage was streamed back to viewers with live commentary. ("It's an incredible panorama of flashes!" reported an ABC news anchor. "Red tracers, white tracers!" exclaimed an NBC reporter.)<sup>3</sup> Technology delivered war as an image that abolishes every possible remoteness, to paraphrase Martin Heidegger, as an immaterial phenomenon of visual delivery shocking, visually safe, and aimed at a nonparticipant—the viewer.<sup>4</sup> In a counterintuitive development, representation replaced embodied experience. Immediate access fused with the inside perspective of military surveillance, which was presented as unmediated knowledge.<sup>5</sup> This "close-up at a distance" visuality forged a remotely coordinated impression of intimacy, a view so aligned with one perspective it eclipsed critique.<sup>6</sup> Visualizing information—the fact and quantity of airstrikes—simulated a first-hand experience of conflict from the remote safety of the homeland and the absolute of controlled surveillance, of information.



Hillary Mushkin and Others  
on Bunker Hill, US-Mexico  
Border, Border Field State  
Park, San Diego, CA, 2014  
Photo: Jena Lee

Mushkin's "Project Series 51: Incendiary Traces," at Pomona College Museum of Art, takes up this paradox as a governing fact of life in our present time of endless war. The project, which has occupied Mushkin for over five years, combines the intense vertical inquiry of scholarly research with a desire to visualize war in the everyday world, revealing a globalized landscape of techno-defense anchored in and around Southern California. To do so, *Incendiary Traces* combines two seemingly opposed strategies: an investment in decoding defense technology's informational "view from nowhere," and an insistence on the validity of individual experience—a composed and authored view from the ground—as grounds for collective knowledge. For each installment of the project, Mushkin selected a site and concept—remote control command at Northrop Grumman, simulation and war games at Twentynine Palms, surveillance and infrastructure along the US-Mexico border—to examine on individual, collective, and institutional levels.

For each she used email and Facebook—another digital matrix disaggregating images and information—to solicit participation in on-location plein-air drawing sessions. Participants gathered on the given date in parking lots, next to industrial parks, and in other forgotten spaces to observe how research and technology operate under the radar of everyday sight and to image national security infrastructure. Following site tours, information sessions, and other official forms of orientation, the participants were invited to make their own impressions of place through lines of sight. Mushkin then gathered their drawings and notations and entered them into her own research record, publishing them as illustrations to essays. Some of these works are the physical evidence on display in this exhibition. Paulina Pulido, for example, sketched the compressed security infrastructure around Mexico City's C4i4 surveillance complex as a sequence of fences, electrical lines, and bishop's crook surveillance cameras. Eva Struble shaded a page of her notebook with a bird's-eye view of the US-Mexico border wall from an adjoining mesa, all paths and patches and hedges. Mushkin herself rendered the bank of screens at the C4i4 control room as a mosaic of watercolor shapes—turning control into color-blocked design. Deploying the medium of Sunday painters and hobbyists, the participants collectively envisioned the tactical and shifting terrain of technological warfare in vignette—translating a clandestine world of geographical surveillance into the composed and personal rhetoric of landscape.

The results differ from the typical view of California—all outdoor living, prize gardens, movie stars, and reality shows. It is a view of modern pragmatism. Behind the Hollywood proscenium, Southern California’s military-industrial boom, led by aerospace, steadily moved the region into a technological command-and-control economy anchored in information sciences.<sup>7</sup> From visual reconnaissance to no-fly lists, geographic information systems (GIS) and virtually operated unmanned aircraft, Southern California’s aerospace and tech industries have developed a strong security infrastructure resolutely divorced from analog description. But unlike the virtuoso campuses of Silicon Valley, their activities remain hidden behind the banal architecture of logistics centers, in operational environments running as nearly neutral administration. They have no public image. In the same way as the live broadcast of videotaped footage of Operation Desert Storm aligned public vision with military perspective, the visuality of national security collapses into data—a view of the world contained in numbers. Representation’s explanatory efficacy is in doubt at a time where image fails to encapsulate the boundless activity of network society.

Visual representation is a political operation. So, too, is the representation of the external world as numeric code.<sup>8</sup> In a society ever more inclined to place its faith in the simplicity of numbers, representation sheds its significance, reduced to an aggregation of finite units then quantified as logical fact. Conclusive, evidence-based identification can take place without needing to pass through the critical faculties of human reason and interpretation. And yet critical media scholars consistently point out that this digital world is structured and articulated, strangely, by visual rather than computational rhetoric. Computer scientist Ben Shneiderman explains, “To understand something is called ‘seeing’ it. We try to make our ideas ‘clear,’ to bring them into ‘focus,’ to ‘arrange’ our thoughts.”<sup>9</sup> The frequency of visual metaphor in describing computation as a relatable process of autonomous thought hints at a deeper relationship between visibility and fact. Whereas data has come to stand not only for “raw” (and therefore objective) information, it is worth considering how it is always already representational, an interpretation of object to code, a return to the complex negotiation between image and information.<sup>10</sup>

So, how to put vision to data, to place virtuality? Incendiary Traces proposes that knowledge is a plural condition of experience,



(left) Official Mexico City Police Documentation of Incendiary Traces’ Visit to C4i4, 2014  
Photo: CAEPCCM

(below) Documentation of Nichole Speciale and Others Sketching at Bunker Hill, US-Mexico Border, Border Field State Park, San Diego, CA, 2014  
Photo: Jena Lee



vision, and analysis generated by viewers as authors of reason. The goal of touring the Marine Air Ground Combat Center in Twentynine Palms is not just to confirm what we already know—that this corner of the Mojave desert passes for Iraq and Afghanistan in war games—but also to examine how such training in generic and data-built virtual environments requires the construction of landscape: a world set up as a perspectival field, with view, vanishing point, and human subjectivity as the origin of action. Visiting aerospace firm Northrop Grumman’s headquarters in Redondo Beach anchors the virtual vision of remote command, control, and surveillance that orchestrates global theaters of war. Visiting the site, sandwiched between Costco, the local performing arts center, and the 405 freeway, in the banality of suburban sprawl, enacts the same mission as Northrop Grumman’s research: recovering geospatial information behind the anodyne curtain of being hidden in plain sight. The fiction of surveillance’s “god’s eye view” begins to be unmasked as a product of Southern California’s military industrial complex. From the control room of Mexico City’s C4i4, technicians monitor not only the *visibility* of bodies and objects in space but also the environmental effects of matter displaced—changes of moisture, elevation, and heat that could indicate phenomena from the gathering of people in public space to the rumblings of an earthquake or the presence of gases and other biological agents. Here, viewing’s transformation into data is complete. Human command of

the observable world finds its strength from numbers as the root confirmation of vision.

Taken collectively, therefore, the disparate elements within Mushkin's exhibition at Pomona offer a vigorous interrogation of landscape in a world in which our technological enchantment with images proposes an absolute and quantified visuality. Against the conventional authority of surveillance and data collection, her project makes room for an imperfect first-person reportage, for "small data" that textures meaning. The display cases on view contain plein air sketches and paintings, historic photographs from public archives, and corporate documents. The project's implementation on the Internet—on *Artbound*, the cultural journalism program of the independent public trans-media station KCET; *Places Journal*; and *Registro.mx*—further speaks to Incendiary Traces' distributive motive, providing a platform for reports and writings in widely available, if intangible, form. In making their publicity available within the iterative space of a college art museum, the exhibition posits that information consists of *material things*, giving it an object status with origin, lifespan, and tactility that undermines its supposed objective authority. This "use factor," the evidence of personal contact and fabrication, argues that information necessarily passes through some form of bodily filter—eyes, hands, brain, reason—on its way to becoming a manifest visual statement. It is, in other words, non-technical and subjective. In an evidentiary manner, Mushkin provides her volume of multi-authored and collective knowledge: laid side-by-side, annotated, and publicly contested in the world of information.

#### ENDNOTES

1. For more on Goya's political agency, representation, and place within the world of an emergent public sphere, see Janis Tomlinson, *Goya in the Twilight of Enlightenment* (New Haven: Yale University Press, 1992).
2. For a comprehensive history of media coverage of Operation Desert Storm, see Susan Jeffords and Lauren Rabinovitz, *Seeing through the Media: The Persian Gulf War* (New Brunswick, NJ: Rutgers University Press, 1994).
3. Walter Goodman, "War in the Gulf: On Television, the Theater of War," *New York Times*, January 17, 1991, <http://www.nytimes.com/1991/01/17/world/war-in-the-gulf-tv-critic-s-notebook-on-television-the-theater-of-war.html>.
4. Martin Heidegger, "The Thing," *Poetry, Language, and Thought*, trans. Albert Hofstadter (New York: Harper & Row, 1971), 163.
5. Allen Feldman, "On Cultural Anesthesia: From Desert Storm to Rodney King," *American Ethnologist* 21:2 (May 1994): 407.
6. Laura Kurgan has written definitively on the roles digitization and data visualization play in producing the affect of objectivity in geospatial politics, and I borrow her term here. For more, see Kurgan, *Close Up at a Distance: Mapping, Technology, and Politics* (New York: Zone, 2013).
7. For more on the urban development of postwar Southern California, see Greg Hise, *Magnetic Los Angeles: Planning the Twentieth-Century Metropolis* (Baltimore: Johns Hopkins University Press, 1999). On Southern California's role in developing network society economies, see Manuel Castells, *The Rise of Network Society* (Malden, MA: Blackwell, 1996) and Rob Kling, Spencer Olin, and Mark Poster, *Postsuburban California: The Transformation of Orange County since World War II* (Berkeley: University of California Press, 1995).
8. Kris Fallon has recently written on the politics of documentary vision in a digital world. See Fallon, "Data Visualization and Documentary's (In)visible Frontiers," in *Documentary Across Disciplines*, ed. Erika Balsom and Hila Peleg (Cambridge: MIT Press, 2016), 294–313.
9. Ben Shneiderman, "Information Visualization," in *Readings in Information Visualization: Using Vision to Think*, ed. Stuart Card, Jock Mackinlay, and Ben Shneiderman (San Francisco: Morgan Kaufmann, 1999), 1.
10. As danah boyd and Kate Crawford have stated, data is not generic, and even at the present scale of infinite volume we take for comprehensive objectivity, it is necessary to understand and recognize comparative bias in the process, investigation, and methodology of its collection. Boyd and Crawford, "Critical Questions for Big Data," *Information, Communication & Society* 15:3 (June 2012): 668–71.