

A Brief and Incomplete History of Art and Technology Ventures in the Bay Area 1980–2010

By Anuradha Vikram

Recently, artists and technology workers in San Francisco have been at one another's throats. The flash point is often identified as the Google Bus, a private shuttle ferrying tech commuters from the city to the Silicon Valley suburbs that has sparked protests and disruptions by social justice advocates, including many artists and creative workers. The opposition to these buses stems from a public perception of tech industry decision-makers as privateers whose disproportionate political and economic influence in San Francisco is the source of cuts in services for the neediest and more amenities for the wealthiest. More fundamentally at fault is a mix of weak public policy and rampant private greed that has rendered San Francisco an unsustainable city with respect to economic and population growth trends. In response, some who are seeking to make peace are enamored of the prospect that artists and technologists could come together in dialogue to resolve, through ingenuity, impasses that civil servants have failed to resolve through policy. Certainly, a community with a rich history of artistic invention and engineering innovation happening side by side should be able to bring those two sides together for everyone's benefit. They are most likely to succeed and to be sustained if everyone involved is familiar with the history of cross-disciplinary collaboration between artists and technology creators that has come before. Lost in much of the back and forth about the conflicting values of artists and technologists has been recognition of the many collaborative efforts between the two fields of inquiry that have taken place in and around San Francisco over the past three decades, including publications, academic departments and research centers, artist collectives, and non-profits. This essay will present a partial survey of such activities.

Before there was ubiquitous computing, there were magazines. Early tech culture reached the mainstream via print, propelled by Bay Area-based publications that grew out of the 1960s counterculture. Stewart Brand's Whole Earth publications—the *Whole Earth Catalog*, the *CoEvolution Quarterly*, and the *Whole Earth Review*—emerged from this social ethos, as did the festival Burning Man. From the start, Brand's publications openly embraced computers and other forms of new technology and critiqued other counterculture outlets for resisting these developments. Online, Whole Earth publications birthed the Whole Earth 'Lectronic Link (the WELL) in 1985, one of the first social communities on the internet. Like its print predecessors, the WELL was a space of free thought and progressive politics that was welcoming of technology and industry. Artists such as Judy Malloy and those associated with the Art Com Electronic Network (ACEN), founded by Carl Loeffler and Fred Truck, used the WELL's primordial social network to create early conceptual media art sites. Malloy, a poet, turned the limitations of text-based computing to her advantage in artworks, and also edited another early platform for art online, *Arts Wire Current* (later *NYFA Current*), along with Anna Couey, who was among the first artists to address telecommunications as social sculpture. Couey collaborated with Art Com, a platform for dialogue and promotion of art and technology intersections. Art Com projects included *send/receive* (1977), an interactive satellite performance event that lasted for fifteen hours and linked collaborators Liza Bear and Keith Sonnier in New York to Loeffler in San Francisco. The work, a bicoastal interactive dance party, was sponsored by NASA, which allowed access to a communication technology satellite, a mobile satellite tracking/receiving station, facilities at Ames Research Center, and numerous other specialized resources.¹ Both Malloy and Couey also collaborated with Sonya Rapoport, an artist trained in Bay Area Abstraction, who had in the 1970s developed a systems-based practice of organizing and visualizing information based on the material byproducts of early computer processing, and whose output since the 1990s includes numerous web-based artworks.

Search & Destroy (1977–79) was a magazine that grew out of founder V. Vale's connections to Lawrence Ferlinghetti's City Lights Bookstore, a haven for the Beat Generation that also provided a boost to the later punk ethos. Underwritten by one hundred dollars each in seed money from Ferlinghetti and Allen Ginsberg,² Vale chronicled the Bay Area punk scene centered on the Filipino restaurant and punk club Mabuhay Gardens, where bands like the Dead Kennedys, DEVO, and Flipper made their names. In 1980, Vale founded RE/Search Publications, which introduced avant-garde music, art, and culture—including the work of writers William S. Burroughs and J.G. Ballard—to a new generation of readers. RE/Search books and magazines bear the cut-up aesthetic embraced by Burroughs, as well as Beat artist and DEVO video director Bruce Conner, whose photographs of Mabuhay Gardens initially ran in *Search & Destroy*. Aesthetically, the imprint is in line with a tradition of alternative publishing



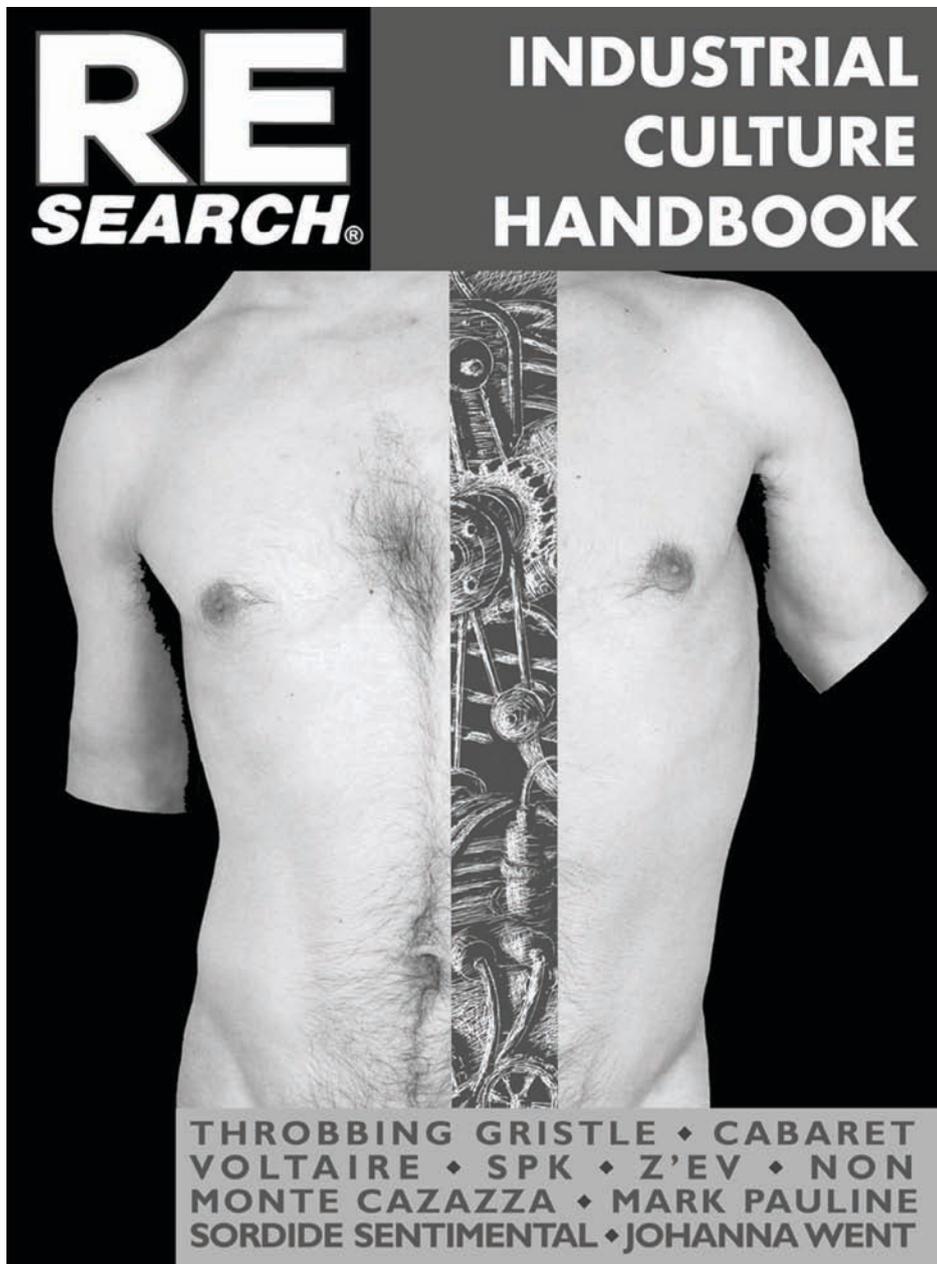
Digital Kakejiku by Akira Hasegawa, San Jose, 2006; photograph courtesy ZERO1

originating in pre-war Dada publications in Europe and emerging in California in the 1950s with *Semina* (1955–64). All of these publications were made possible by advances in photo reproduction, graphic design, and publishing technologies that prefigure the self-publishing capacity and person-to-person distribution model of the contemporary media age.

RE/Search was instrumental in promoting the genre of industrial music with international musicians such as Throbbing Gristle, helping to bring attention to local innovators the Haters, the Residents, and Monte Cazazza. Similarly, *RE/Search* brought visibility to the now-dispersed San Francisco machine art scene of the 1980s and '90s, including Survival Research Laboratories (SRL, founded in 1978), People Hater, Amorphic Robot Works, and Christian Ristow, who used electronic instruments, computers, and post-industrial detritus to create art and music that might celebrate human ingenuity or critique militarism and state-sponsored violence. For the most part, these visual artists, performers, and writers display a Futurist streak, embracing the

constructive potential of new technologies, from engineering to biological implants to neurological mapping, and placing the blame for technology's misuse at the feet of humanity rather than with machines.

Like the WELL and *RE/Search*, *Mondo 2000* was a culture publication with a strong allegiance to tech that grew out of the Bay Area underground. *Mondo 2000* emerged in 1989 from the unique social alchemy of Berkeley, where academics, artists, engineers, designers, and outlaws coexist. *Mondo* brought 1990s digital pastiche to the collaged aesthetic of *RE/Search*. Interviews with cyberpunk authors such as William Gibson and Bruce Sterling helped popularize the genre, alongside contemporary music, art, and popular culture. Prominent Silicon Valley figures including Jaron Lanier, Joichi Ito, and John Perry Barlow were associated with *Mondo 2000*, the first magazine targeted to a new, digitally connected audience. Contrary to the salaried comfort promised to today's charter bus-riding tech employee, *Mondo 2000* presented a New Age vision of techno-utopia: a hedonistic,



RE/Search #6/7: *Industrial Culture Handbook* (1983); photograph courtesy V. Vale

fundamentally unpredictable lifestyle at the outer edge of technological progress. Life extension, virtual sex, and other speculative technological advances championed by the magazine were based in scientific principles but came much closer to art's imaginative potential to reshape our world.

These early examples of art produced with and about technology reflect an experimental spirit that permeated both sectors at a time when neither engineering innovations nor contemporary art developments were so inextricably tied to extreme wealth as they seem to be today. With little to lose, these inventors were

Levine. MIT's media arts journal, *Leonardo*, was for many years centered editorially in the Bay Area with physicist, astronomer, and author Roger Malina serving as executive editor from his home base in Berkeley. In this capacity, he brought numerous artists from the region onto the editorial board of the peer-reviewed electronic music and art-and-science journals.

In addition to print journals, *Leonardo* has supported an ongoing lecture series, *Leonardo Art Science Evening Rendezvous (LASER)*, exploring the intersection of technology and art, which is programmed by Piero Scaruffi and hosted by

both closer to the lived realities of those left behind by progress and farther from the tastemakers and gatekeepers who confer high social status. Some, like *RE/Search*, took a more dystopian perspective, concerned with militarism and industrialized cruelty, while others, like *Mondo 2000*, focused on technology's potential to liberate human beings from our messy bodies and emotions; yet both of these positions occupied a space at the edge of culture. Perhaps what is lost in the current discussion about the disconnect between artists and technologists is recognition of how drastically the culture of tech has shifted in the past two decades from a space of experimentation to one of commodification.

As these crossovers have become more accepted as examples of significant cultural production, academic publications and institutions have played a major role since the 1990s in establishing the Bay Area as a haven for art and technology collaborations. Academia has long been a point of connection, with artists Paul DeMarinis, Gail Wight, and Camille Utterback represented at various times on the faculty of Stanford University; the CADRE Laboratory for New Media at San Jose State University, directed by Joel Slayton, supporting this dialogue for more than twenty years; Mills College's Intermedia Arts program, bridging visual arts and electronic media; California College of the Arts's Media Arts Department, formerly chaired by Barney Haynes (now absorbed into the Interdisciplinary Studies and Fine Arts programs); and San Francisco State University's Conceptual Information Arts emphasis, directed by Paula

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Jill Miller presenting *The Milk Truck* at Dorkbot, aboard the MV *Maritol* workspace, Pier 50, San Francisco, December 18, 2013; photograph by Karen Marcelo

various Bay Area universities and research centers, including the University of San Francisco, UC Berkeley, and Stanford University, as well as the SETI Institute. LASER lectures offer an opportunity for cross-disciplinary networking, with each bill featuring three or four Bay Area speakers who run the gamut from scientists to technology innovators and artists. At UC Berkeley, the Art, Technology, and Culture Colloquium has been running since 1997, providing a platform for artists who work with new technologies to present their work in the Bay Area. Early participants with local roots included Paul Haerberli, Lynn Hershman, Bruce Tomb, and Wight. Visiting speakers included Lev Manovich, George Legrady, Billy Klüver, Julia Scher, Woody Vasulka, and former MoMA video and digital media curator Barbara London. The lecture series is organized by UC Berkeley computer science professor Ken Goldberg, an artist in his own right, who was one of the first artists to represent the genre to Whitney Biennial audiences in 2000. In 2004, UC Berkeley established the Berkeley Center for New Media, which

formalized the interests of the Art, Technology, and Culture Colloquium into a structured, integrated art and technology program of study.

Exhibition opportunities for artists whose practices extend to the pursuit of, or collaboration with, scientific and technological expertise have been more widespread within the Bay Area than in most other communities. Despite the male-dominated reputation of the tech industry, the region has been especially rich with women who made significant contributions to contemporary media art, such as Wight, Mills College Intermedia Arts Program co-founder, and Utterback, an interactive artist and MacArthur Fellow; and to electronic music, such as pioneering composer Pauline Oliveros and electronic musicians/intermedia artists Pamela Z and Miya Masaoka. Some of the curators who broke institutional ground for these practices locally include Beau Takahara and Marcia Tanner, both of whom began their careers as administrators at SFMOMA (Tanner from 1984 to 1987 as director of public relations, and Takahara in various

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capacities from 1980 to 1989). Takahara went on to serve as founding director and CEO of GroundZero, the first all-inclusive Bay Area festival of art and technology, which she and Ground Zero founder Andy Cunningham built into the first regional arts organization focused on art and technology, ZERO1, producer of the ZERO1 Biennial in San Jose. GroundZero's advisory board included figures from the venture capital, engineering, museum, and entrepreneurial spheres, and was envisioned as a site for mutually beneficial dialogue between these groups.³ As an independent curator, Tanner has organized shows that foreground technology's relationship to feminist concerns in the arts, such as *We Interrupt Your Program* at Mills College Art Museum in 2008 and *Brides of Frankenstein* at the San Jose Museum of Art in 2005—the latter supported by the San Jose Museum of Art's former Senior Curator JoAnne Northrup, another champion of technology-based artists, including Jim Campbell and Leo Villareal. Artist and designer Karen Marcelo has run a community gathering, Dorkbot, at various locations in San Francisco since 2002, which has been a hub for art and design collaborators including early participants in the Maker Faire scene. Other notable independent producers of media art based in and around San Francisco include Amy Critchett and Wanda Webb, both of whom produced events for tech companies in the 1990s and bring that expertise to visual art and other cultural presentations.

Alternative galleries in downtown San Francisco supported media art until rising rents and insufficient public support caused several to fold, including the 1990s gallery Blasthaus (later revived as RxGallery, closed 2007) and New Langton Arts (1975–2009). SF Camerawork, founded in 1974, is a member-driven nonprofit in downtown San Francisco that continues to support art and technology collaborations. The Luggage Store Gallery nearby has supported intermedia arts and electronic performance since its founding in 1987. Recombinant Media Labs, the 1991 brainchild of Asphodel Records co-founder Naut Humon, presented live cinema and electronic music in a “CineChamber” of immersive projection and in-the-round sound, which was located for many years in a San Francisco warehouse that served as a performance space, but has since morphed into a nomadic display for installation at festivals and events worldwide.

The loss of so many alternative spaces speaks to the difficulty that San Francisco's community of experimental, market-averse artists faces today when trying to remain in a city that has become so cost-prohibitive. This economic pressure has also affected technologists, who are encouraged to follow venture capital's interests in developing new marketing apps and weapons technologies instead of solving problems of social collapse or resource scarcity. The progressive social conscience that San Francisco prides itself on has been less in evidence as the cost of living has increased, with both artists and technologists now oriented toward the interests of the city's affluent classes. As such, the tone of the conversation has shifted away from its messianic origins to a market-based language of “solutions,” “incubators,” and “workshops,” where the emphasis is on quotidian goals rather than era-defining visions.

Precursors to the popular “tech incubator” model emerged from the Bay Area art and tech community in the 1990s. CyberLab 7 was a studio in SoMa that proposed to engage artists and technologists in preparing for the new millennium by envisioning future realities. Artists and inventors ran workshops that attracted young creative workers, including the robotics workshops of SRL, Ristow, Chico MacMurtrie, and the Seemen. Tech start-ups, not yet dazzled by riches, were driven by a spirit of inquiry much closer to the motivations of artists. Many of the volunteers in machine artists' workshops had jobs at technology companies, such as Eric Paulos, an artist and SRL collaborator who worked at Intel for many years.

As we consider how recent developments in the tech economy are transforming the urban landscape, we should also reflect on how much the introduction of vast wealth disparity has transformed the fundamental character of tech companies and science-based industries. True innovation arises not from profit but from curiosity. The city of San Francisco is at risk of being strangled by its own success as innovators in both artistic and scientific realms find themselves displaced by a digital factory model that disenfranchises even skilled workers from the products of their labor. As a new generation of inventors in artistic and scientific spheres grapples with the challenges of coexisting in an increasingly stratified city, one can hope that the spirit of collaborative questioning that has driven San Francisco and the Bay Area's rich history of digital and media art can be preserved. To do this will require a renewed commitment to the diversity, experimentation, irreverence, and curiosity that the recent influx of money has displaced along with the city's longtime residents.

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NOTES 1. Judy Malloy, excerpts from “Keeping the Art Faith, Interview with Carl Loeffler,” *Artcom Electronic Network*, on The WELL, 1988, www.well.com/user/jmalloy/artcom.html. 2. Ron Placone, “V. Vale Interview,” *The Cult*, June 19, 2008, <http://chuckpalahniuk.net/features/workshop-essay/v-vale-interview>. 3. Nora Raggio, “The Art of Networking and Fundraising for the Arts: An Interview with Beau Takahara, CEO, Ground Zero,” *Switch* 6, no. 20 (November 2000), <http://switch.sjsu.edu/v6n2/articles/raggio-takahara.html>.

