PREFACE

This book was written during the last year of Rich Gold's life. The illustrations are selected from those he prepared for the many lectures he gave to a wide diversity of audiences over the past decade. Drawing on his experiences, he summarizes in a playful yet profound way his ideas about art, science, design, and engineering and how these produce "the stuff of the junk tribe" or global corporate consumer capitalism. *The Plenitude* is a graphic textbook, a cartoon treatise, a speculative autobiography. It is also a very practical essay in moral philosophy, rich with ideas and feeling. It is my hope that publication of this work by MIT Press will make this richness (pun intended) known to a wider audience.

Given the volume of Rich's output, the stretch of his imagination, and the diverse arenas in which he pursued his activities, I'd like to give the reader some background and context for pondering the questions that he touches upon.

THE AVANT GARDE TRADITION

Rich's highly original work is deeply rooted in the tradition of the avant garde: the leading edge of a group of practices developed in early twentieth-century Europe under the rubric of modernism. An interplay between originality and continuity is the key to understanding his long strange trajectory: dadaist performer, faux scientist, computer geek, toy designer, cartoonist, project manager, museum exhibit producer, corporate branding theorist, futurologist, and World Economic Forum Fellow. Rich embodied universal roles such as artist-as-trickster, which is present in avant garde art but harks back to ancient sources. Someone with access to the more ineffable experiential realms who also has the gift of sharing those visions with others, whether through story, song, dance, architecture, sculpture, mathematical equation, or any combination of these, merges the functions of artist, scholar, and priest.

Gordon McKenzie, in his book *Orbiting the Giant Hairball: A Corporate Fool's Guide to Surviving with Grace*, talks about his long career at the enormously successful Hallmark greeting card company, where he acts as a sort of shaman, pushing the edges of what people can conceive, challenging the locked-in practices, assumptions, and restraints (the *hairball*) to release creative energy. Seen as everything from a spiritual advisor to saboteur of meetings or even charlatan, McKenzie feels that he provides creative dissonance, serving as an irritant or disruptor to the business-as-usual approach that in any large organization works against innovation. When Rich visited Hallmark, McKenzie recognized Rich as also being an *orbiter*, someone with the ability to work within the constraints of a corporate culture while connecting it to larger cultural patterns,

new ideas, different ways of conceiving the business at hand and the business of the future.

Having made more than a few people enormously wealthy, thinking outside the box became the self-important mantra of pre- and postmillennial silicon valley. But most often the person who dares to do it is slapped down by risk-averse management, quashed by economic realities, or rendered inert by a climate of *deja-cool*. As MacKenzie put it, an organization can "officially laud the generation of new ideas while covertly subverting their implementation." Like some dadaist provocateur, Rich was frequently able to slightly stretch the membranes of the box and nudge people into questioning what the box is and what it holds.

A PRODUCT OF HIS TIME

Rich was born in 1950 in suburban America, popularly understood in the United States as a time and place of optimism and prosperity, good free public education, eradicated diseases, and happy childhoods. But as many scholars of popular cultural history tell us, the 1950s were also a time of deep anxiety. Nuclear threat and the Communist menace were an undercurrent of the carefree affect of that decade. In the following years a growing domestic civil rights movement and an unpopular foreign military intervention in southeast Asia contributed to the national disequilibrium. Conditions at the time one "comes of age" always leave an indelible mark.

"Rich Gold" came into being in Buffalo, New York, in 1963 when thirteen-year-old Richard Goldstein, deciding to become a writer, clipped a few letters off the ends of his name to give it more zip. (Not wanting to waste the left-over letters, he created an anagram-

matic alter ego, Ned Sarti, who later published numerous works of pulp fiction. But that is another story.) By the 1970s, Rich had found his niche in the musical sector of the avant-garde art world, where concept and execution were paramount; materials, genre, and context could be drawn from the most diverse and disparate sources and combined in any way.

Rich and I met around 1977 at Mills College, where I was getting a degree in poetry and recording media. Mills, a women's undergraduate college, admits men in some of the graduate programs and he was in the graduate electronic music program at the Center for Contemporary Music. This was a time of maximum cross-fertilization among genres, media, and disciplines. Here is an anecdote that concisely illustrates this multimedia interdisciplinary ethos: Rich's 1978 MFA thesis *Concert* was a display of several hundred very small watercolors illustrating a mathematical series and its inversions; these were painted on the backs of several decks of regular playing cards. There was also a video-feed showing Rich performing, with Ed Holmes, inside the empty concert hall. In 1983, my thesis *Exhibit* for an MFA in visual art from U.C. San Diego consisted of an evening performance in concert of my songs in invented and fractured languages and electronic processed vocal pieces incorporating various types of scales and world music modes.

Of course the tendency of cultural trends to tighten up, shrink back, and close off boundaries is always at work too, so this openness couldn't last. Based on our experiences in the art scene of the late 1970s and early 1980s, Rich and I developed an analysis of the social forces and technological givens operating in the production of art at that time. Our argument went against the grain to the highly touted total freedom of the artist. "Clay from the Riverbank: Notes

on Curating Computer Art in the '80's" appeared in *Ear* magazine in 1984 and triggered many heated late-night discussions.

THE TWO CULTURES

The intellectual divide (articulated in by C. P. Snow's 1963 book) between the cultures of science and the humanities simply did not exist for Rich. He straddled the worlds of math and language and was one of the earliest adopters of the microprocessor as a tool for art-making, and ultimately for *thinking*. The teenage novelist and young composer Rich Gold was interested in structures and processes, patterns, the interplay between rules and chance, game theory, complete sets, symbol systems, permutations, variations or transformations, series generated by the recombination of a set of elements. His works might be sonic or graphic in nature, incorporating linguistic symbols or "found" artifacts such as thrift store toys and game pieces. "Newton's Nightmare or Como Unbound" (with Paul Robinson) was an installation at San Francisco's Langton Arts. A Rube Goldberg–like assemblage was held together by strings, which, in performance, were individually cut to release all kinds of planned kinetic, electric, sonic, and visual mayhem. "Return to Common Ground" (with Paul Wilson), was an environmental performance for sailboat, fishing poles, mime, and megaphones at Fort Mason in San Francisco Bay.

In the early 1970s Rich pursued "research" as art practice. Using a variety of graphic languages, he created cultures with myths and maths and languages of their own; and, with the Kim1's 1K of memory, allowed them to learn and adapt over time. Every work produced was cogenerated or coenacted with the others. Each project

fed into the next, linked as progenitor or offspring, core or elaboration, reversal, inversion, or reiteration in different media: The musical score is generated from a variant of the Fibonacci number series; the title of the song is later incorporated into a live writing event using a tiny computer, which produces a book in a day, written on butcher paper and posted on the walls; the text is later given in performance with singer, balalaika, and electronic space drums in a punk club.

Drawings are turned into symbols for a math equation that generates a pattern that is allowed to expand and form a story. Portraits of the story's characters are painted on panels and shown at Sushi art gallery in San Diego. A *Scientific American* article discussed Rich's algorithm to generate sounds and send them to the other computers of the legendary mid-1970s microprocessor quartet, the League of Automatic Music Composers. This algorithm was also used to choreograph the "social dance" of fifteen artists holding clusters of colored balloons on the hillside vineyard of an art collector in northern California one afternoon in 1978.

Each piece was explained, described, or re-enacted as a Goldograph, a series of pamphlets issued to subscribers over the years. One early Goldograph, *I Primi Lavori di Rich Gold*, was a catalog of works to date, reminiscent of Marcel Duchamp's piece "Valise," containing small replicas of his own previous artworks. "The Cybernetic Oracle," a ten-parameter linear control model that works only when not believed in, was used to tell fortunes in performance and became another Goldograph. "Georgeo of the Suburbs" was a particularly rich cloudlike formation of poems, stories, rites, performances, booklets, and videos, many of them instances of the social dance of a small group of (imaginary) characters across the surface of a world (imaginary) with very specific rules.

This continuity and interweaving occurred not only in media, genres, and idioms but across a broad range of social environments: the experimental art and music worlds, academia, nonprofit organizations, and the business world. Beginning in the late 1980s Rich's presence was increasingly in demand at research institutes and conferences concerned with everything from innovation and art, interface design, and civil engineering, to publishing, language, multicultural technology transfer, and ethics.

Using the tools of one discipline to do something other than its original intent, recalls linguistic and anthropological studies in a kind of mimicry that can be understood as "faux" science in the dadaist spirit. But the use of tools of analysis to create art and of artworks to comment upon and analyze the world is also fraught with broader significance. In "The History of Modern Golf" a tenth hole is "grown" as if it were an embryo. The conversion of one thing into another, for example a fictional or invented topography used to generate sound, the reading of one system through another—these processes, their results, and what he made out of them, Rich called *structuristems* or "Modern Sophistries."

STRUCTURALISM

Modernism had foregrounded the processes and materials of art making, calling into question the relation of form and content. Structuralism was modernism's mid-century manifestation in the world of ideas. Rooted in formalism from eastern Europe and Russia, it flared into western European thought with Levi-Strauss's uses of linguistic analytical models to study human cultural patterns. Structuralism brought into focus the strange disjuncture of Signifier from the Signified, providing ways to step back and fiddle

with these relationships. Thus did the art world move toward its inevitable confrontation with the most metaphysical of relations: that between an artwork and its meaning. Did the "meaning" of an artwork pre-exist? Where was it to be found? Was it produced or constructed, and if so by whom? From Duchamp's urinal to Serrano's "Piss Christ" this urgent question has been tattooed into mass awareness.

FROM DADA TO DATABASES—PLAY AS WORK, WORK AS PLAY

Rich's roots were in artistic movements such as futurism and surrealism. But the avant garde of our 1960s youth—John Cage, David Behrman, Bob Ashley, Gordon Mumma, Alvin Lucier, Fluxus, the Art and Technology movement—were most influential. He moved through disparate even contradictory worlds of low-budget experimental art venues, arcade-game design, toy and entertainment product design, and ultimately the business and academic arenas, fully engaged with the minute tangle of present difficulties but always keeping the big picture in mind. Rich never lost the sense of *play* so crucial to the trickster and inherent in those avant-garde movements; for him, work and play were not distinct and separate spheres but part of his daily life.

Rich's first homegrown electronic entertainment, the Train Game, landed him a job at SEGA in the early 1980s, where he produced digital sounds for coin-op arcade games. He had entered the corporate umbrella world by way of games, interfaces, toys.

After Sega, Rich developed an interactive entertainment product for home computers consisting of the Little Computer Person, a "pet person" living inside a virtual dollhouse. This was years before

Tomaguchi was popular. Subsequently, at Mattel, Rich worked on projects incorporating electronics : Baby Heather, Captain Power, AI Robot, and the Power Glove. As he learned about the design, manufacture, and marketing of products, he understood that, since "play" is a highly malleable activity, the "Toy" can be viewed as an interface to the imagination. PowerPoint itself functioned for Rich as what he called a "Toy for Thought."

The Goldograph chapbooks are whimsical applications of what he called *toy structuralism*. In the early 1980s a set of elements emerged: There were ten of them, of course, so that a ten by ten grid could emerge as they "mated." The TEN OBJECTS are as silly and arbitrary as anything can be, yet, when displayed, the matrix of all 100+ images and their captions oscillates uncannily between absurdity and pathos.

After working on "ubiquitous computing" with Mark Weiser at PARC, Rich continued to focus on distributed computing as it became an everyday part of lives in the form of GPS, cell phones, and PDAs. He would use the concept of devices as *thought tokens* or EKOs, evocative knowledge objects.

His enquiry extended the observations in that 1978 *Ear* magazine article. The free-wheeling intermedia/multimedia experiments of the 1970s had taken a strange turn and everything more or less converged onto "The Computer" in its now normative familiar form.

READING AND WRITING

Another thread woven through the textile of Rich's work-life is an abiding interest in literature, literacy, and the technologies of reading and writing. "Ink must be in my blood," he used to say. His

father owned a printing business that was later run by his brother; one sister is a print-maker, another had a desktop publishing business for years. He pioneered the writing of novellas in a single day in performance (sometimes directly onto walls or objects) in galleries, complete with publishing party and reading in the evening. These were not extemporaneous or "automatic" writings, but highly structured ones based on schema, algorithms, or the behavior of real-time interactive and intra-active microcomputer networks.

Some of his early works outlined the "initial conditions necessary for the rise of agriculture on a toroid world given programmatic vegetation and a single nomadic tribe," studied "infidelity as a 2-dimensional vibrating surface in a frictionless proverbial world," or used nida structures (a cross between surface and deep grammar) and its associated binary-tree diagrams to perform syntactical investigations on random sentences.

The Border was a set of performances based on a novella written using a cartoon surface structures semantics and a proscriptive syntax. His conceptual approach interleafed relationships between various types of structure. He called this "vertical" literature, where readers would descend through layers and levels, as opposed to the more horizontal traditional textual practices where the text is meant and assumed to be a transparent medium through which its signified can be absorbed.

In the emerging digital world in the early nineties, the "copier giant" Xerox repositioned itself as the Document Company. The group Rich headed at Xerox Palo Alto Research Center (PARC) eventually became known as Research in Experimental Documents. Experiments in the Future of Reading was produced by RED for the Tech Museum of Innovation in San Jose. Thirteen interactive instal-

lations explored how the technology and mechanics of reading have changed and offered a variety of approaches to ways we might read in the future.

MID-CENTURY VISIONARIES: DICK AND DEBORD

Finally, it is important to mention two mid-century visionaries who were crucial to Rich's thinking. First is the compressed precision of situationism and Guy Debord's early grasp of how mass media and technology would profoundly alter social consciousness. Debord was the initiator of this cynical and prescient Parisian form of post-modern anarchism that has successfully resisted assimilation by mass media and remained relatively obscure to this day. Rich also read and collected the books of Philip K. Dick, the California science fiction writer whose stories are still being made into chilling major movies nearly fifty years after he wrote them.

In a fury of insight during the 1950s, Dick and Debord foresaw the future and its discontents with shattering clarity. Although Rich was of a more sanguine temperament than these dystopic thinkers, he kept their concerns at hand as he wrestled with aesthetic, social, and global issues.

Within the constraints of the corporate world and high-tech design Rich continued the investigations he began in the quirky avant-garde realm, expanding their accessibility and relevance. What he came up with as an obscure and idiosyncratic artist in the seventies was now an international commodity.

He had carved out a space where he was not only able but encouraged to ask questions: The texts of two of his last published pieces, "How Smart Does Your Bed Have to Be Before You Are Afraid to

Go to Sleep in It?" and "When My Father Mows the Lawn Is He a Cyborg?" are a series of open-ended questions amounting to a metaphysics of representation.

At his untimely death in January 2003 Rich Gold left a densely packed collection of materials documenting much of his output since the early 1970s. These are now housed in the Silicon Valley Archives of Stanford University's Special Collections Library.