

Charles Gute: Notes for Sub-Techs: New Post-Digital Sculpture at The Lab, San Francisco 4/98 (excerpt)

"Science and art are inevitably separated. Any attempt to 'bring the two together' should be looked at with suspicion."

Billy Klüver, "Theater and Engineering—An Experiment: Notes by an Engineer" (1967)

"Science fiction writers know that a good gush of ray-gun-blasting melodrama will cover up a multitude of futuristic sins."

Bruce Sterling, forward to Reality Check, (1996)

The conjunction of art and technology is not new. The cross disciplinary work of Leonardo da Vinci, and the mechanically engineered spectacles of Renaissance and Baroque culture are useful early examples of art and science functioning as arguably parallel branches of experimental inquiry. Art and technology did not philosophically diverge until the Industrial Revolution, when artists began to reject the values of an urbanized society increasingly at odds with individual authorship and the natural world. The resulting schism widened so significantly that when, a century later, Marinetti published his Futurist Manifesto in 1909, proposing the synthesis of art and machine to revitalize society, the gesture was nothing short of anarchistic. From that critical moment in 20th Century art emerged a rich tradition of art consciously appropriating technology, in which the six artists in Sub-Techs are the latest generation. In the 1920s and 30s, Bauhaus artists such as Moholy-Nagy, and Russian Constructivists Malevich and Rodchenko took up many of Futurism's radical ideas, using new technology to create interdisciplinary works in all artistic media. For these artists, technology was a means to reinvent the vocabulary of art, with a particular emphasis on using new techniques to disseminate their utopian agenda for social change throughout Russia and Eastern Europe, and to integrate art and daily life. While both the Russian avant-garde and German Bauhaus succumbed to political events, many of their proponents continued to germinate the union of art and technology. Moholy-Nagy himself founded the New Bauhaus in Chicago in 1937, an institution dedicated to uniting "art, science and technology in a creative pattern." Over the next three decades other artists collectives and institutions promoting collaboration between artists and scientists would emerge, most notably the Center for Advanced Visual Studies at MIT, the Zero Group founded in Düsseldorf by Otto Piene and Heinz Mack,

and Experiments in Art and Technology (E.A.T.), founded by Billy Klüver in New York. Pop Art, with its fetishization of machine-made cultural ephemera, would draw further attention to technology's role in shaping contemporary aesthetics during the 1960s. By the early 1970s the precedent for artists working specifically with digital technologies was well established, as evidenced by the appearance of landmark museum surveys on the topic such as "Software, Information, Technology" at the Jewish Museum in 1970, and "Art and Technology" at the Los Angeles County Museum the following year.<sup>4</sup> However, these manifestations of art and technology were at the time largely overshadowed by (although at times brilliantly integrated with) minimalism and conceptual art, the major formal innovations of the late 1960s, which continued to dominate art practice throughout the following decade.

In the mid-1980s a noticeable new preoccupation with digital systems and technologies emerged, although the previous optimism toward these tools was replaced with openly critical and often distrustful regard. In addition to the vital and still continuing exploration of video as an artmaking tool, artists such as Steina & Woody Vasulka, Alan Rath, Jenny Holzer, Tatsuo Miyajima, Stelarc, Simon Penny, and many others would make groundbreaking works using specialized, cutting-edge digital hardware. Much of this new work delivered openly political content which self-reflexively condemned the mass media consciousness enabled by the same tools used to create the work. In 1984, Apple released the "Macintosh" personal computer, which the visual arts community rapidly embraced. In 1971, no college art department owned a computer,<sup>5</sup> but by the mid-80s this was a standard item in art schools, with entire departments devoted to the new "media arts."

With institutional acceptance and increased access (although far from fulfilling the optimistic rhetoric of a virtual community free from class, gender or ethnic barriers), practitioners of digitally produced art championed an entirely new realm of aesthetic experience, making claims for "interactive," "nonlinear," "virtual," "hybrid," and "global" art forms. We can still only anticipate whether these neo-utopian promises will be realized in the context of art. Meanwhile, the ever accelerating pace of technological change puts artists in the unfortunate role of having to keep up with the hype, making it increasingly difficult to qualitatively place fine art practice within constantly shifting formal parameters. Artists of the 1990s already have made significant work in such areas as robotics, telecommunications, genetics, artificial intelligence, virtual reality, nanotechnology, cybernetic body modification,

and all have been fashionable and frequently-visited topics of high-profile exhibitions. As with technology-based work throughout the century, much of the resulting discourse over the past decade has hinged on one of two opposing ideological positions: 1) technology is to be celebrated as the utopian medium through which artists are empowered with unlimited new modes of expression, and 2) technology is to be feared for its boundless potential to undermine our privacy and freedom, and generally debase our sense of "the real."

Both models are dependent on a certain amount of gratuitous technospectacle to convey their relative positions. The former tends to do so unabashedly, while the latter tempers its hypervisual environment with a healthy dose of commentary, often in the form of heavy-handed imagery and textual content. Although neither position is without merit, neither addresses the formal and conceptual parameters of these new forms, and how they interface with established approaches to making art. This lack of formal examination is convenient when the work in question is grounded in little more than technical gimmickry, with traditional art practice at best superficially referenced, and all formal elements defaulting to the material components of the technology itself.

This is certainly not meant to condemn all such experimental work, but rather to highlight a common problem with the process of integrating art with the newest technologies (although one might argue that any art whose form and content is shaped by technologies which are themselves shaped mainly by commerce and the military is inherently problematic; but this is an oversimplification). It is this precise juncture, however, where the emerging artists in Sub-Techs differ: since they have no pretension about being at the forefront of technology, they do not attempt to "straddle the tricky position between front-line consumerism and cutting-edge artistic practice," as one artist aptly described the dilemma. Here is a group of artists who, almost unavoidably, have become fluent in new technologies, but who employ them sparingly if at all, and often in unlikely combinations with more conservatively "clunky" sculptural media. Neither wowed by cyber gimmickry nor paralyzed with Neo-Luddite paranoia, these artists pick freely from a fertile assortment of high and low-tech tools. Their end goal is not merely to create new visual effects for their own sake, or, by contrast, to generate a didactic, medium-specific content—but rather to drive both methodologies toward a more idiosyncratic outcome. While digital technologies by their nature suggest a move toward the dematerialized, creating a simulated 3-D landscape out of an increasingly malleable 2-dimensional field, the artists on view at The LAB self-consciously ground their ideas in the

concrete world of physical material, preferring the perversely handmade to the virtual. Post-digital sculpture is a kind of Arte Povera for the end of the millennium.

[...]While Feeney's recontextualized industrial artifacts invite art-historical interpretation, Austrian artist Gebhard Sengmüller's objects come with their own revisionist history. In an ingenious act of sub-technical engineering, Sengmüller has created Vinyl Video™, a technique for storing video signals onto conventional analog "LP" recordings, which can then be played back on a combination turntable/video monitor. From a technical viewpoint, Vinyl Video™ is no small accomplishment, requiring development of a "black box" with computer software to manage data compression between diamond needle and cathode-ray tube. Though still improving through ongoing technical refinements, the resulting images are significantly degraded due to inherent bandwidth limitations. Lacking sound and color, and running at only 8 frames per second—as opposed to the 30 frames per second common for standard video—any film content rendered via Sengmüller's retrograde medium resembles some of the earliest manifestations of moving picture history. Sengmüller forces us to consider our place in the continuum of technological progress by showing us an alternative direction in which that progress might have gone, or as the artist calls it, "a fake archeology of media." The artist points out that although electronic transmission of moving images has been possible since the late 1920s, convenient storage and retrieval of these images was not possible until the development of the video tape in 1958, and it was not until the early 1980s that video recording technology became widely available for home use. With Vinyl Video™ Sengmüller posits a home movie technology beginning in the late 1940s and continuing through the 1970s, and, leaving little to the imagination, even reconstructs integrated turntable and television home entertainment systems suited to the stylistic mass-market needs of each past decade. While media art tends to traffic in conjectural visions of the future, Sengmüller's work cultivates a fictitious technological past. In doing so his works uniquely transcend technical obsolescence. [...]

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1. For an excellent overview of mechanical spectacle in the Italian Renaissance see Attanasio de Felice, "Renaissance Performance: Notes of Prototypical Artistic Actions in the Age of the Platonic Princes," *The Art of Performance: A Critical Anthology*, Gregory Battcock

- and Robert Nickas, editors, New York: E.P.Dutton, 1984.
2. Although anarchy for its own sake was also in keeping with the reactionary politics of Italian Fascism, Futurism's main ally. Filippo Tommaso Marinetti. Manifesto of Futurism, translated by R.W. Flint. Reprinted in *Art in Theory: 1900-1990*, Cambridge: Blackwell Publishers, 1994.
  3. Lázlo Moholy-Nagys. Quoted in Gyorgy Kepes: MIT Years 1945 - 1977. Cambridge: MIT Press, 1978.
  4. Kristine Stiles. "Art and Technology," in *Theories & Documents of Contemporary Art: A Sourcebook of Artists' Writings*. Berkeley: University of California Press, 1996.
  5. Ibid.
  6. Joanna Drucker. "Digital Reflections: The Dialogue of Art and Technology." *Art Journal* Fall 1997, Vol. 56, No. 3.
  7. Quoted in Barbara Rose. "Art as Experience, Environment, Process." from *Pavilion by Experiments in Art and Technology*. New York: E.P. Dutton & Co., 1972.

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