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EPHEMERA

Jennifer Gabrys

The Quick and the Dirty Ephemeral Systems in Silicon Valley



Figure 1

In Palo Alto, California, one can tune the TV set not just to the nightly news and game shows, but also to educational programming designed to instruct viewers on the finer points of computer systems. A computer system, one such program notes, is comprised of two elements: hardware and software. But because I am here in Silicon Valley to consider the types of waste and pollution that emerge with computing, it becomes apparent that the “system” of computing in fact, extends to a wider landscape. Digital technologies (basically, everything fitted with a chip) contribute to a sense of acceleration and dematerialization. Material becomes mobile, smaller and approximates a state of immaterial information. With the continual rush of innovation so synonymous with computing, an equally rapid rate of obsolescence emerges. The appearance of every new machine inevitably corresponds to outmoded devices and systems. Innovation and obsolescence within digital technologies have for this reason given rise to the dilemma of electronic waste, or that growing tide of computer debris, the fallout from constant computing advances. Yet these tendencies toward the ephemeral fall outside the crisp diagrams that instruct on digital functions. This photo essay maps those spaces where waste, decay and pollution reveal other orders of materiality that have yet to enter the sense of the digital. These are spaces outside the diagram; they suggest that computing may be a system that is deeply implicated with forms of ephemerality that extend far beyond technological obsolescence.



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Figures 2-6

Stepping outside the archive and museum, one can read the history of computing through the waste traces left in this sprawling landscape of sun and speed. Digital technologies promise a future without residue, yet here in Silicon Valley, the erstwhile epicenter of all things digital, one also finds the highest number of Superfund sites within the United States. Many of these sites, now in remediation, are saturated with chemical pollution not from heavy industry, but rather from the manufacture of electronics, primarily microchips. From the mining of gold to the production of integrated circuits through toxic chemicals from Freon to trichloroethane, to the eventual recycling or disposal of equipment, digital technologies involve an elaborate process of waste-making. The notion that materials and devices are disposable is further aided by the speed at which new technologies operate and appear.



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Figures 7-11

This is a landscape geared toward digital production that must contend with its solid construction not from virtual bits but from dirt and rocks. Computing acquires its speed in tandem with its increasing miniaturization and dematerialization. But this speed and immateriality affect not only the size and style of the latest electronic devices, but also the contours and infrastructure of a landscape sculpted for digital production. With such quick technology, the landscape itself becomes ephemeral. It is even ephemeral twice over. Outmoded, the landscape lapses from the scenic function to become a template of movement, with circuits from freeway to office complex. Expendable, it is a container and dumping ground that can be wasted, buried and rearranged. Silicon Valley has engineered its own geology, where slow systems have quickened to a digital pace. As economies of production, consumption and waste accelerate, the time of landscape shifts, systematically, toward the ephemeral.



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Figures 12-15

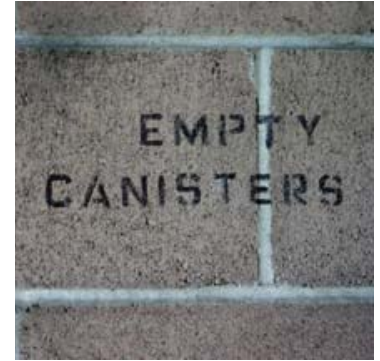
Architecture, and not just landscape, finds its shelf-life rapidly diminished in scale. Buildings appear overnight and vanish within the same duration. Fully occupied as the headquarters for ground-breaking technologies and completely abandoned upon failure or obsolescence, these blank structures register neither shock nor excitement at their fate. They are mute blocks of concrete, aluminum and glass that reflect only the blue of sky and the turn of automobiles. Buildings full or empty register in nearly the same way, as though they were constructed with the moment of disposal already etched on their facades. Parking lots are the only sign of life. Company logos are easily emblazoned or erased on corner signs. Every long block of buildings gives way to a litter of structures—divisible and available—for lease. For these buildings, inside and outside become ephemeral. Interiors are the site of frenzied and dissolving activity sited in the communication across wires. Exteriors collapse into a planar dimension of anonymity, so that when the show is over, we can all pack up and go home.



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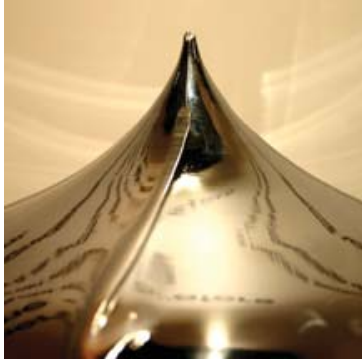
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Figures 16-20

The digital industry has speed and turnover in mind, but it typically employs materials that linger for decades. Here are foam and plastic, mercury and lead, substances thicker and more enduring than any transcription of zeros and ones. Yet for all their endurance, these substances have been essential to the emergence of new orders of ephemerality. Plastic is nearly synonymous with disposability; it is the durable discardable. The tons of chemicals used in the manufacture of integrated circuits, and the gallons of water used to wash away the solvents, migrate and accumulate in the soil and groundwater beneath every zone of fabrication. Materials are caught in a tension between the quick and the slow. Ephemerality may hold at one level; yet at another, new spaces of permanence emerge. The balance of time shifts. The instant creates new geologies. We now have mountains of congealed carbon polymers that will last for an ice age.



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Figures 21-24

The system of hardware and software thought to discretely contain the processes of computing cracks open to reveal intersections with other landscapes. Here is the dirt that comes with the quick; the indelible stain of ephemerality. An entirely new landscape accumulates from the fallout of the momentary and the disposable. This is not just a story about the progressive vaporization of “all that is solid,” but also one that suggests new forms of solidity—new types of “hardware”—that emerge with programmatic obsolescence. The waste endemic to digital technologies suggests as much, where so many new beginnings give rise to a mounting space of endings. The feedback within this system of computing produces accumulative and unpredictable effects; it is an open rather than closed system that may have ephemerality as its guiding agenda, but unwittingly produces new orders of permanence. This essay hopes to raise the question of how we encounter these new spaces and artifacts of indeterminable duration.

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