equipped them with an extraordinary repertoire of ways of adapting to such variability. The world challenges them anew each and every day and in ways that could not possibly be met with a single tool, or even a few, or perhaps not even with a finite number of tools. Slime mold, in its capacity for self-organization, illustrates one strategy for survival, and it is undoubtedly a versatile and fertile object-to-think with. But ultimately more complex living beings find the need of a far larger repertoire of strategies than this little organism can possibly be expected to display.

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WHAT MAKES AN OBJECT EVOCATIVE?

Sherry Turkle

What makes an object evocative? As I write, Bodies, an exhibition of preserved humans from China, is on tour internationally. Its objects, poised between death and new animation, raise questions about the sanctity of what has lived, the nature of art, and the human beings who once were the objects on display. Thinking about the uncanny, about thresholds and boundaries helps us understand these objects with their universal powers of evocation.

And yet, the meaning of even such objects shifts with time, place, and differences among individuals. Some find the preserved bodies the fearsome creatures of night terrors. For others, they seem almost reassuring, an opportunity to contemplate that although death leaves matter inert, a soul may be eternal.

To the question "What makes an object evocative?" this collection offers pointers to theory (presented as epigraphs) and the testimony of its object narratives, voices that speak in most cases about familiar objects—an apple, an instant camera, a rolling pin. One role of theory here is to defamiliarize them. Theory enables us, for example, to explore how everyday objects become part of our inner life: how we use them to extend the reach of our sympathies by bringing the world within.

As theory defamiliarizes objects, objects familiarize theory. The abstract becomes concrete, closer to lived experience. In this essay I highlight the theoretical themes of each of the six parts of this collection (with special emphasis on objects and the inner life) in the hope that theory itself will become an evocative object. That is, I encourage readers to create their own associations,
to combine and recombine objects and theories—most generally, to use objects to bring philosophy down to earth.

*It was made of two wheels and an axle, with a pin hanging down from the middle of the axle (not quite hitting the ground), and a string at the end of the pin.*

—Mitchel Resnick, “Stars”

*Objects of Design and Play*

Objects help us make our minds, reaching out to us to form active partnerships. Mitchel Resnick’s pull-toy, a wooden car on a string, embodied a paradox: “Since the string is attached to the end of the pin, it seems that the pin should come toward you. At the same time, it seems that the wheels should come toward you. Both can’t be true.” Resnick had been shown the pull-toy in his high school physics class; he brought the idea of the toy car home with him, but more than this, he brought home the notion of paradox itself. He took apart his own, familiar toys for parts that enabled him to rebuild the pull-toy in his fashion, and even when he had come to understand its mysteries, he continued tinkering: “Even after I ‘knew’ the answer, I loved tugging on the string and thinking about the paradox.” The object took on a life of its own. “No ideas but in things,” said the poet William Carlos Williams. And the thing carries the idea.

The anthropologist Claude Lévi-Strauss would say that as Resnick made and remade the pull-toy he was becoming a scientist, more specifically, a *bricoleur*, a practitioner of the science of the concrete. Bricolage is a style of working in which one manipulates a closed set of materials to develop new thoughts. Lévi-Strauss characterizes the primitive scientist as a *bricoleur*, but modern engineers, too, use this style.

From our earliest years, says the psychologist Jean Piaget, objects help us think about such things as number, space, time, causality, and life. Piaget reminds us that our learning is situated, concrete, and personal. We invent and reinvent it for ourselves. As Resnick plays with pull-toys, he is learning to see himself as capable of inventing an idea, and he is changing in other ways as well. He is learning to be more at home with uncertainty and with his own object attachments.

Object play—for adults as well as children—engages the heart as well as the mind; it is a source of inner vitality. Resnick reminds us of how his mentor, the mathematician and educator Seymour Papert, considered the lessons of his childhood object: gears. An intimate connection with gears brought Papert in touch with ideas from mathematics. As Papert put it: “I fell in love with the gears.” Far from being silent companions, objects infuse learning with libido.

Another of Papert’s students, Carol Strohecker, proposes knot-tying as a microworld that similarly combines ideas and emotions. Here, I pair her essay with the writing of Lévi-Strauss, a connection that puts the focus on the cognitive. But reading Strohecker’s narrative from a psychoanalytic perspective shifts the emphasis to emotion and the particular needs of individuals. In *Playing and Reality*, Winnicott describes how one of his patients, a seven-year-old boy, becomes obsessed with string in response to the anxiety of being separated from his hospitalized mother. At each hospitalization, the boy turns to string play as solace, as a way of coping with her absence.

Similarly in Strohecker’s “Knot Lab,” ten-year-old Jill, a child of a difficult divorce, is preoccupied with tying down the ends of string as she works, using tape, nails, and tacks to keep her knots in place. For Jill, knots are a way to think through her personal situation. Herself at loose ends, Jill is comforted by securing knots in transition. When she builds a knot exhibit that enables passers-by to play with the back-and-forth movement of a True Lovers’ Knot, her label for the knot concludes with the phrase “please pull me.” Strohecker hears Jill speaking through the knots: “Notice how I am suspended by two
knots, one that anchors me and one that holds me. Notice how I am two knots, waiting to be pulled this way and that. I understand being pulled; it is something that I know. Allowing others to pull me is a purpose that I serve.

My datebook and its events had their own esoteric language. Familiar venues, organizations, and individuals were noted in tiny writing and abbreviations that only I could decipher.

—Michelle Hlubinka, “The Datebook”
Objects of Discipline and Desire

Michelle Hlubinka writes about her datebook and her first timepiece—a Mickey Mouse watch that she received on a family vacation when she was four: “Having the watch, I entered a society not just of time-keepers, but time-managers. And I became good at it, perhaps too good at it.”

You think you have an organizer, but in time your organizer has you. The organizer is one of many day-to-day technologies that concretize our modern notion of time. The historian of technology Lewis Mumford examines how the invention of the clock by monks in the Middle Ages transformed social life and subjectivity. Clocks produced time as discrete units, making possible a new way of thinking. Before clocks, there was day and night, morning, mid-day, and evening. Soldiers showed up for battle at dawn. After clocks, there were minutes and seconds. Industrialization needed a clock-produced world of measurable sequences and synchronized action. Capitalism depends on regimenting human time and human bodies.

Our clocks and datebooks do more than keep us on time. Objects function to bring society within the self. The historian Michel Foucault provides a framework for thinking about how objects such as Hlubinka’s watch and datebook serve as foundations of “disciplinary society.” In modern times, social control does not require overt repression. Rather, state power can be “object-ified.” Every time we fill out a medical questionnaire or take a pill, we are subjects of social discipline. And every time we enter appointments in our datebook, we become the kind of subjects that disciplinary society needs us to be.

When literary theorist Roland Barthes writes that the objects of disciplinary society come to seem natural, what is most important is that what seems natural comes to seem right. We forget that objects have a history. They shape us in particular ways. We forget why or how they came to be. Yet “naturalized” objects are historically specific. Contemporary regimes of power have become capillary, in the sense that power is embodied in widely distributed institutions and objects.

From this perspective, Gail Wight’s object—the antidepressant medication she calls “Blue Cheer”—produces a patient, just as Hlubinka’s datebook produces a time-keeper and time-manager. At the start of Wight’s narrative about her pills, she has a sense of herself as an unhappy artist. Soon, psychiatry recasts her identity: she is a broken biological mechanism, but one that medicine can fix. Over time, Wight does not need the presence of a physician to reinforce her medical identity. Over time, the pills alone can do the job.

Eden Medina, like Wight, has her body disciplined. In Medina’s case, the social demands are embodied in her shoes. The ballet slippers that haunt Medina communicate the shape of the body to which they want to belong: the ideal dancer’s body, conforming to the socially constructed conventions of ballet. Toe shoes put Medina in touch with body practices that teach how the flesh disappoints and how it needs to be disciplined and denied.

Although it looked like a Braun transistor radio, this object never produced sound. I asked the boy about it and
he said: "It can't play music, but I sing when I carry it. One day I'll have a real one."

—Julian Beinart, "The Radio"

Objects of History and Exchange

Julian Beinart saw a new object, a mute radio made of wood, and then he could not stop seeing it. His hometown of Durban, South Africa, revealed itself to be rich in technological objects fashioned from the raw materials of an impoverished culture. There were bicycles made from beer cans, cars from bent wire, radios from wood—all technologies of everyday life copied as pure form.

As Beinart found these objects, he saw people and social relationships of which he had been previously unaware. The mute radio and its cousins changed the people who made them and Beinart who discovered them. The mute radio, with no instrumental purpose, was free to serve as commentary on possession and lack, on power and impoverishment.

In a famous passage on commodities, Karl Marx describes how when wood is transformed into a table, it remains an ordinary, sensuous thing. But when the table becomes a commodity in a market system, the object comes alive: it "stands on its head and evolves out of its wooden brain grotesque ideas far more wonderful than if it were to begin dancing of its own free will." Like Marx's commodities, Beinart's wooden radio comes alive as it embodies relationships to power. Yet the wooden radio subverts itself as a commodity and reveals the social relations that commodities are designed to hide.

The social theorist Marcel Mauss, too, describes the animation of objects: gifts retain something of their givers. As people exchange objects, they assert and confirm their roles in a social system, with all its historical inequalities and contradictions. A gift carries an economic and relational web; the object is animated by the network within it.

From the perspective of the philosopher Jean Baudrillard, the mute radio reveals something profound about the social role of all the radios that can speak. He describes how commodities cultivate desires that support the production and consumption capitalism requires. This process keeps the dominant ideology alive. It becomes invisible and alienates from the real. In such a system, normal radios are taken for granted. But when radios are remade in wood or throw-away tin, the invisible is made visible. In wood, a radio is subversive, a potent actor.

David Mitten finds a Native American axe head that also speaks to him in a subversive way. It subverts his sense of distance between himself and those who came before him, a theme of the writings of Bruno Latour, with whom his essay is paired. For Latour, objects speak in a way that destroys any simple stories we might tell about our relations to nature, history, and the inanimate; they destroy any simple sense we might have about progress and our passage through time. Mitten says that when he picked up the axe head, the landscape of his ancestry exploded around him, demanding that it be placed in history, in nature, and in the social lives of the people who had and used it. More than this, Mitten knows that he will part with the axe head only in death, when his daughter will inscribe his life into stories about it.

A bunny with a soft cotton collar less than half-an-inch wide was named Collar Bunny... He had a small plastic rattle inside his body, and when he sat, the stuffing in his arms made them stick out to the sides.

—Tracy Gleason, "Murray: The Stuffed Bunny"

Objects of Transition and Passage

D. W. Winnicott called "transitional" the objects of childhood that the child experiences as both part of the
self and of external reality. Collar Bunny (later renamed "Murray") is such an object.

He belongs to Tracy Gleason's younger sister, Shayna. Whatever Shayna imagines herself doing or thinking ("like dressing herself and hopping on one foot and telling a silly joke") can first be "tried on" as bunny thoughts and actions.

Winnicott writes that the transitional object mediates between the child's sense of connection to the body of the mother and a growing recognition that he or she is a separate being. When Shayna starts preschool and its rules insist that Murray cannot accompany her, she is challenged to invent ways of bringing him along. Her solution is to invest Murray with new powers. He develops the ability to read Shayna's mind and intuit her every emotion. In doing so, Murray makes it possible for separation to be not-quite separation. Transitional objects let us take things in stages.

The transitional objects of the nursery—the stuffed animal, the bit of silk from the baby blanket, the favorite pillow—all of these are destined to be abandoned. Yet they leave traces that will mark the rest of life. Specifically, they influence how easily an individual develops a capacity for joy, aesthetic experience, and creative playfulness. Transitional objects, with their joint allegiance to self and other, demonstrate to the child that objects in the external world can be loved. Winnicott believes that during all stages of life we continue to search for objects we can experience as both within and outside of the self.

It is in these terms, as an object in the space between self and surround, that Judith Donath speaks of her much-beloved 1964 Ford Falcon. She inhabits the car like a "skin"; it connects her to her mother, its first owner, and to her children, for whose safety she abandons it. It brings her the joy of an object that traffics, in her words, "between the outside world and the inner self."

Donath's essay is paired with the writing of the anthropologist Igor Kopytoff, who explores objects in terms of their life spans, a perspective that encourages us to look at the biography of an object alongside that of a person. Through Donath's sensitivity to the Falcon's cultural biography, she was better able to understand her own. When Donath rides the Falcon as a child in the 1970s, it is a bourgeois suburban object. When it reappears in New York's East Village in the 1980s, the Falcon has been transformed into the neighborhood "cool car." By the 1990s in Cambridge, Massachusetts, the car is exotic and glamorous, congruent with Donath's desire to stand out as a graduate student. "No matter how dully mundane I felt, in the Falcon I was the Driver of that Cool Car."

Winnicott situated his transitional objects in play, which he saw as an intermediate space, a privileged zone in which outer and inner realities can meet. For William J. Mitchell, born in the outback of Australia, the train to Melbourne provided such a space.

The train is the backdrop for a rite of passage, a time of transition that the anthropologist Victor Turner has characterized (for individuals and cultures) as "liminal" or threshold time. For Turner, these times of transition are characterized by the crystallization of new thought and the production of new symbols.

On the Melbourne train, Mitchell is taken from one physical space (his small village in the Australian bush) to another (the cosmopolitan Melbourne), and he is also taken toward a new identity. He writes: "Each warmly lit carriage interior was a synecdoche of urbanity—an encapsulated, displaced fragment of the mysterious life that was lived at the end of the line." Within the liminal space, the self is porous. In train space, Mitchell is open to new associations, sights, and sounds: "And there were wondrous cabinets of curiosities, with friezes of large, sepia photographs over the seats."
In liminal space, Mitchell brings books, words, and objects within his expanding sense of self. It is on the train that he first realized that he can read.

"It was on a train, long before I was reluctantly dragged off to school, that I first realized I could read... words in memorable sequence, the beginnings of narrative... As the years went by, and I made myself into an architect and urbanist, I began to understand that objects, narratives, memories, and space are woven into a complex, expanding web—each fragment of which gives meaning to all the others."

Mitchell's essay, rich in its discussion of language, is paired with an excerpt from the literary theorist Roland Barthes, whose reflections on objects, language, and identity (he writes of "language lined with flesh") also resonate with those of David Mann, writing about the transitions facilitated by the World Book Encyclopedia he received as a child.

Far more than a vehicle for the transfer of information, Mann describes the encyclopedia as a means of access to language:

Its pictures came to life in my mind, parsed into nouns and danced through grammar to the music of verbs. By the time I was four it had taught me to read. Not through my family but through these volumes language became a part of me, the book of the world opened to me and I myself opened to the world as I might otherwise never have done.

Mann and Mitchell make language itself a liminal object, standing outside and within the self, a vehicle for bringing what is outside within.

Mann's description of a self constituted by language is paired with a text by the psychoanalyst Jacques Lacan. Lacan believes that to talk of "social influences" on the individual neutralizes one of Freud's most important contributions: the recognition that society doesn't "influence" autonomous individuals, but comes to dwell within them with the acquisition of language.

Lacan's theory allows for no real boundary between self and society. People become social with the appropriation of language. You and language become as one. There is no natural man. Lacan's narrative of how language comes to "inhabit" people during the Oedipal phase opens out to larger questions about how we build our psyche by bringing things within. Nowhere is this more in evidence than when we consider what we bring within at a time of loss.

The logo boasts "Globe Trotter," echoing my grandmother's love of travel. With her newfound liberty after her husband and children had gone, she began to discover the world... But this suitcase is new; she had been saving it for one final trip.

—Olivia Dasté, "The Suitcase"

Objects of Mourning and Memory

After her grandmother's death Olivia Dasté packs the old woman's suitcase one last time. A sweater, a handkerchief, a teacup are lovingly arranged in the suitcase. Dasté is afraid to open the suitcase too soon: "It feels dangerous to open it. Memories evolve with you, through you. Objects don't have this fluidity; I fear that the contents of the suitcase might betray my grandmother." But after two years, mourning has done its work. Dasté holds a fragrant red sweater to her face and knows she doesn't have to. Dasté has internalized her grandmother's spirit. "I smile. I am with her in Bordeaux and we have all the time in the world."

In The Year of Magical Thinking, Joan Didion describes how material objects may look during the
mourning process. After her husband's death, Didion cannot bring herself to throw away his shoes because she is convinced that he may need them. This is the magical thinking that is associated both with religious devotion and the "illness" of mourning. With time, Freud believed, the true object, the lost husband, comes to have a full internal representation. This completes the formal process of mourning; it is only at this point that the shoes can be relinquished. They have served a transitional role.

Susan Pollak, too, begins her narrative of loss with an echo of the tactile—brought back by the way a rolling pin evokes her grandmother's kitchen, the safe place of Pollak's childhood. Pollak's thoughts then go to baking and to the evocative object of Marcel Proust, perhaps the most famous evocative object in all literature. Proust's object is the small cookie called a madeleine. When dipped in tea, the taste of the madeleine brings Proust's character back to his youth, to a country home in Combray, and to his aunt Albertine. Finally, the madeleine opens him to "the vast structure of recollection."

"Never underestimate the power of an evocative object," says Pollak. As a practicing psychotherapist, she is interested in objects for more than evocation. She argues, following Winnicott, that transitional objects can heal. Pollak tells the story of a patient, Mr. B., who was not able to mourn his father until he found the "half-moon" cookies his father had bought for the family when Mr. B. was a child. At that time, money had been tight and his father had only been able to buy day-old cookies. When Pollak's patient went back to his old neighborhood and found the bakery from his childhood, he bought a dozen fresh half-moon cookies. They were unfamiliar, almost displeasing. He had to wait until they were a day old in order to savor them. Only the taste and texture of his childhood could reestablish his lost connection. After finding the cookies he was able to talk to his children about their grandfather. He was able to recall his father's acts of generos-
them vulnerable, open to the objects and experiences of their time of transition. The contemplation of liminal objects can make us similarly vulnerable. In their disorienting qualities, in the way they remind us of the mundane yet take us away from it, scholars’ rocks share something of what Freud called the uncanny, those things “known of old” yet strangely unfamiliar.31

In his writing on the uncanny, Freud analyzes the etymology of the German words heimlich and unheimlich, roughly the homelike and familiar and the eerie and strange. The two words seem to be the opposite of each other, suggesting that the eerie is that which is most unfamiliar. But among the meanings of heimlich (familiar) is a definition close to its opposite: it can mean concealed or kept out of sight. Heimlich has a “double.” By extension, Freud argues, our most eerie experiences come not from the exotic, but from what is close to home. Uncanny objects take emotional disorientation and turn it into philosophical grist for the mill.

In this collection, Jeffrey Mifflin, the curator at Boston’s Massachusetts General Hospital, uses a 2,600 year-old mummy to ponder ultimate questions: “He had been flesh and blood and bone, and the flesh and bone were still there. His senses had once worked as mine now did. His mind was gone, but neither would I live forever.” Mifflin’s mummy frightens him even as it grows in his affections. The man who became the mummy was Padihershef, a stonecutter who lived near Thebes during the Saite Period (XXVI Dynasty) and died in his late forties. His specialty was cutting stone to make tombs. Mifflin begins to identify with Padihershef. When Mifflin opens the mummy’s exhibit case and smells the embalming spice and chemicals, he is not overtaken by their pungency, but by the thought that Padihershef’s own friends would have smelled something quite similar as they closed his coffin.

Mifflin calculates the generations between himself and the mummy, in his estimate about 130, and he wonders if his “distant progenitors in Britain were mining tin or slicing blocks of peat at the same time that Padihershef was chiseling out tombs in Egypt?” Mifflin thinks about his own uncertainties about religion and the afterlife in relation to Padihershef’s probable certainties. Mifflin measures their lives against each other, each seeking to find a place in history and in his generation.

As a curator, Mifflin compares the untidy, chaotic spaces in museum back rooms and the meticulous presentations in the front rooms where all is tidy and ordered. The contrast reveals something too often hidden: we tend to present “front room” knowledge as “true.” But its certainties are constructed. We make up a clean story to mask our anxieties about the chaotic state of the little that we know. Chaos compels its opposite: “the orderly presentation of supposed facts” to which Mifflin feels disconnected. He fears that he will always be blocked in his ability to experience certainties by his access to their opposite—his experience in the dirty back rooms. Yet it is the contrast between the front and back rooms that leads Mifflin to a new appreciation of the complexity of knowledge.

In Purity and Danger, the anthropologist Mary Douglas examines the evocative power of such contrasts, focusing on how the tension between order and disorder is expressed through our relationship to dirt and pollution.32 Order is defined in terms of dirt, or that which is not polluting. And dirt is defined in terms of order. Societies create the classification “dirt” to designate objects that don’t fit neatly into their ways of ordering of the world.

This collection ends with Evelyn Fox Keller’s reflections on her life in science, a narrative about the power of order-disrupting (“dirty”) objects to provoke meditation and new vision. Keller takes slime mold as her object, an object full of paradoxes: “In times of plenty, it lives as an individual single-celled organism
but, when food supplies are exhausted, it regroups... [it] traffic back and forth both between the one and the many and between sameness and difference.

Turner and Douglas help us see things on the boundary, such as slime mold, as both disruptive and as sources of new ideas. Indeed, for Keller, the "betwixt-and-between" slime mold not only becomes an object-to-think-with for thinking about processes within cells, it becomes a way to think about the politics of science.

In the late 1960s, most biologists argued that slime mold goes from being a unicellular to a multicellular organism, following a signal given by "founder cells." In a 1968 paper, Keller and biologist Lee Segel disagreed. They suggested that changes in the slime mold's state followed from the dynamics of the cell population as a whole. There was no command and control center that took charge of the process. Biologists resisted this suggestion. Keller says: "[D]espite the absence of evidence, [biologists] continued to adhere to the belief that founder cells (or pacemakers) were responsible for aggregation."

Two decades later, while working on a biography of the geneticist Barbara McClintock, Keller again faced the resistance of biologists—this time to a style of doing science. Canonical scientific methods insisted on the researcher's distance from the object of study, but McClintock wanted to be close to her objects, among the corn cells of her research. She imagined herself like a modern-day Alice, brought to their scale in order to feel more a part. Her colleagues in biology were not impressed. Keller began to identify with McClintock. Like her subject, when Keller had looked at cells, she had seen social and decentralized processes. Keller comes to see her career and McClintock's as illustrative of how biology rejects theories that challenge the dogma of single and centralized causal factors.

As Keller wonders why people find causal accounts so compelling, she considers explanations that draw on the Freudian tradition. There, our earliest, profoundly bonded, connections to the world are interrupted by a sudden experience of separation. Keller hypothesizes that "we tend to project onto nature our first and earliest social experiences, ones in which we feel passive and acted upon." Whether or not this particular hypothesis is true, she says, a more general point certainly is: scientists were not open to the "discrepancies between our own predispositions and the range of possibilities inherent in natural phenomena. In short, we risk imposing on nature the very stories we like to hear."

What are the stories we like to hear? Keller suggests that they are often the ones that confirm us in comfortable ways of thinking. But theory can help us to see things anew.

Until now, I have discussed physical objects that engender intimacy. What becomes of this intimacy when people work with digital objects?

Any response needs to be complex, as is apparent in the contrast between two essays in this collection. Mitchel Resnick describes his StarLogo program that brings its users to an encounter with ideas about emergent phenomena, much as the concrete objects of Piaget's day put children in touch with ideas about counting and simple categorization. His goal is to have the computer enable a new kind of teaming. Yet Susan Yee's testimony about work in a digital archive suggests aspects to life on the screen that may be inherently alienating.

Yee, an architect, begins her relationship with Le Corbusier through the physicality of his drawings. As she works in the Le Corbusier archives in Paris, his original blueprints, sketches, notes, and plans are brought to her in long metal boxes. Le Corbusier's handwritten
notes in the margins of his sketches, the traces of his fingerprints, the smudges, the dirt, all of these encourage Yee's identification with the designer. To Yee, the most "miraculous" moment in the physical archive is finding the little colored paper squares that Le Corbusier used to think through his design for the Palace of the Soviets. Yee says that she could imagine Le Corbusier "fiddling" with the design elements, moving them around, considering different shapes and volumes as he worked. The little bits of colored paper connect Yee to his process. Delighted, Yee "fiddles" with them too. The bricolage of the master is re-experienced in the bricolage of the student. As it happened, Yee was visiting the Le Corbusier archive at a dramatic moment, the day it was converted from physical to virtual space. The philosopher Jacques Derrida sees such transitions as "transforming the entire public and private space of humanity."3 For one thing, while any archive is a selection of material that erases what has been excluded—the digitized archive goes a step further. Its virtuality insures another level of abstraction between its users and what has been selected. It brings to mind Derrida's writing about the word processor where "erasure" is central to his concerns: "Previously, erasures and added words left a sort of scar on the paper or a visible image in the memory. There was a temporal resistance, a thickness in the duration of the erasure. But now everything negative is drowned, deleted; it evaporates immediately, sometimes from one instant to the next."35

Derrida's meditation on erasure brings us back to what troubled Yee in the archive. She is aware that, digitized, the Le Corbusier archives will be available to scholars all over the world and be protected from wear and tear. Yet, when the archive is digitized, Yee experiences the loss of her connection to Le Corbusier: "It made the drawings feel anonymous," she says. More important, the digitized archives make Yee feel anonymous. She is grateful for her own position in a generation of architects that knows drawing by hand as well as by computer; her narrative captures an anxiety that digital objects will take us away from the body and its ways of understanding.

Through Yee's essay on the archive, this collection engages the problem of virtuality and its discontents. Yet her cautionary essay must be read in relation to other narratives about computational objects—represented by the promise and enthusiasm of Resnick's writing, as well as that of Howard Gardner, Trevor Pinch, and Annalee Newitz—that suggest how digital objects engage us in new and compelling ways.

Indeed, in Newitz's description of her laptop computer, the flickering screen does not appear cold and abstract, but is integrated into her sense of herself. Her experience of the laptop is reminiscent of how Joseph Cevetello, a diabetic, talks about his glucometer, a device for measuring blood sugar. Cevetello notes how over time his glucometer becomes more than companion: the glucometer "has become me." Moment to moment, its output determines his actions. He lances his finger, readies an insulin injection, and waits "for my meter to tell me what to do." The laptop, like the glucometer, is experienced as co-extensive with the self. Newitz feels so close to her laptop that she cannot tell where it leaves off and she begins. Her self-understanding depends on analyzing the flows and rhythms that pass between herself and the machine. In bed, Newitz remembers not to let the blankets cover the computer's vents so it does not overheat. She is at one with her virtual persona: "I was just a command line full of glowing green letters."

Cevetello and Newitz have achieved couplings so intimate between themselves and their objects that we might characterize them as cyborg.36 In the cyborg world we move beyond objects as tools or prosthetics. We are one with our artifacts. And in the cyborg world, the natural and the artificial no longer find themselves in opposition. Says the historian of science Donna Haraway:
“Any objects or persons can be reasonably thought of in terms of disassembly and reassembly.”37 No object, space, or body is sacred in itself: “Any component can be interfaced with any other if the proper standard, the proper code, can be constructed for processing signals in a common language.”38 Newitz still has to carry her laptop around, but the day is not far off when computation will become part of our bodies, beginning with chips to improve our sight and hearing. Cevetello anticipates the day when his glucometer will be available as an implant; it will provide a digital readout directly sensed by his body.

Once we see life through the cyborg prism, becoming one with a machine is reduced to a technical problem of finding the right operating system to make it (that is, us) run smoothly. When we live with implanted chips, we will be on a different footing in our relationships with computers. When we share other people’s tissue and genetic material, we will be on a different footing with the bodies of others. Our theories tell us stories about the objects of our lives. As we begin to live with objects that challenge the boundaries between the born and created and between humans and everything else, we will need to tell ourselves different stories.