

"BENESCH'S reading of the canonical authors uncovers a dimension of these writers—and this period—that is strikingly original. One finishes this study feeling that cyborgian imagery is central to any consideration of the new nineteenth-century culture of technology. His scholarship is most impressive."

—Miles Orvell, author of *After the Machine: Visual Arts and the Erasing of Cultural Boundaries*

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Benesch

ROMANTIC
Cyborgs

Massachusetts

ROMANTIC

cyborgs

AUTHORSHIP
AND
TECHNOLOGY
IN THE
AMERICAN
RENAISSANCE



KLAUS BENESCH

LITERARY critics have long regarded the rejection of technology as a distinguishing feature of American Romanticism. Yet as Klaus Benesch shows in this insightful study, the attitude of antebellum writers toward the advent of the machine age was far more complicated than often supposed. Although fraught with tension, the relationship between professional authorship and evolving technology reflected a pattern of adjustment rather than opposition, as writers sought to redefine their place within a culture that increasingly valued the engineer and the scientist.

According to Benesch, major writers such as Emerson, Hawthorne, Melville, Poe, Whitman, and Rebecca Harding Davis recognized technology as a powerful engine of social change—a driving force that threatened to subordinate their creative faculties to the inexorable dictates of industrial production. In response, they conjured up “cybernetic” self-representations that attempted to preserve the autonomy of the individual author in the face of ongoing technological encroachment. These biomechanical images helped writers construct a hybrid identity that reconciled new modes of technological production with older, more organic models of professional writing.

In the end, Benesch argues, Romantic literary discourse is marked as much by admiration for the technological as by strains of resentment and cultural anxiety about

(Continued on back flap)

its negative effects. As such, it prefigures in important and previously unacknowledged ways the modernist and postmodernist sensibilities that would follow.

KLAUS BENESCH is professor of English at the University of Bayreuth, Germany.

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R O M A N T I C
cyborgs

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AND
TECHNOLOGY
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AMERICAN
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KLAUS BENESCH

UNIVERSITY
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As a study of a formative period in American literary and cultural history, *Romantic Cyborgs* has inevitably been influenced by the work of scholars of many different shades and disciplines. An interdisciplinary, border-crossing project examining the emergence and mutual dependency of representations of authorship and technology in antebellum America, it is indebted to sheaves of critical commentary on the writings and writers of the American Renaissance proper, as well as to insights from the history of technology and science, sociology, philosophy, anthropology, psychoanalysis, and last but not least, the motley field of cultural studies. To situate my own approach within this large scope of diverse academic discourses and, simultaneously, distinguish it from the ever-increasing number of critical studies on nineteenth-century American literature and culture is a task I take on in the introductory chapter. What remains to be acknowledged, however, are the numerous personal and institutional sources of inspiration and collaboration, without which this project could never have been accomplished in its present form.

Although the general topic of the book grew out of my interest in the history of technology and the cultural and aesthetic implications thereof, some of its assumptions are, more specifically, derived from the stimulating discussions during a graduate course I taught at the University of Massachusetts Amherst in 1996 titled "Modern American Literature and the Machine." Although the focus of that class was on the first

half of the twentieth century, the challenging, knowledgeable responses of the participants helped me to understand better the ambiguous attitudes of even the most conservative of writers when it comes to modern technology. I am especially grateful to David Ram (who wrote a wonderful paper, "The Loudspeaker in Faulkner's *Pylon*") and Tony Lacavaro (a fledgling professional poet in his own right) for their enthusiasm and encouragement. Many thanks also to my Amherst colleagues Vincent DiMarco, Jay Neugeboren, Stan Koehler (retired but never tiring teacher, poet, and critic, with whom I shared an office), and John Nelson, computer specialist and amateur historian of unheard-of inventions and inventors, whose friendship and support were essential in making Amherst an invigorating and inspiring environment that allowed me to pry deeper into the tangled history of writing and technology in America.

My first steps toward dealing with a period of American literary and cultural history that inaugurated our modern understanding of the profession of the author as well as that of the engineer and technician had been taken in the early 1990s, when I spent five months as a fellow of the German Endowment of the Arts at the Harry Ransom Humanities Research Center in Austin, Texas. Owing to the center's generous practice of supplying office space and allowing access to its comprehensive library facilities even to young, as yet unestablished scholars from overseas, I was able to complete a first draft of chapters 1 and 2, thereby laying the conceptual and structural groundwork of the present study. To the librarians and administrators of the HRC, I offer my special thanks for their warm support.

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K. B.

introduction

AUTHORSHIP, TECHNOLOGY, AND THE CYBERNETIC BODY

Let us not, then, lament over the decay and oblivion into which ancient writers descend; they do but submit to the great law of nature, which declares that all sublunary shapes of matter shall be limited in their duration, but which decrees, also, that their elements shall never perish. Generation after generation, both in animal and vegetable life, passes away, but the vital principle is transmitted to posterity, and the species continue to flourish. Thus, also, do authors beget authors, and having produced a numerous progeny, in a good old age they sleep with their fathers, that is to say, with the authors who preceded them, and from whom they had stolen.

Washington Irving, "The Art of Book-Making"

Within the framework of a study on authorship in antebellum American literature, Washington Irving's tongue-in-cheek essay "The Art of Book-Making" seems an especially fitting point of departure.¹ Let me begin with the sobering idea that there is a *vital* principle in nature as well as in literary history and that therefore bygone authors are to the writing of literature what the individual is to the survival of the species: a never-

ending source for intellectual plagiarism, priceless nourishment for succeeding writers who engage in the tedious and irksome process of re-writing or "recycling" what has already been written. If we take into account that "The Art of Book-Making" evolved against the backdrop of Romantic conceptualizations of art that stressed the strivings of solitary geniuses and the originality of their ideas, Irving's satirical description of modern writers clandestinely and shamelessly exploiting the works of their predecessors aptly highlights the myths and paradoxes inherent in the Romantic notion of authorship.

By rereading the vitalist foundation of contemporary poetics as a symbol of decay—that is, of the author's imminent descent into public oblivion—rather than an affirmation of his or her exceptional creative power, Irving scathingly challenges Coleridge's organic principle of poetry whose basic tenets reverberate throughout the major works of the American Renaissance.² This Romantic ideal of literary work as an act of quasi-organic procreation, the notion that the making of art emulates the generative processes of nature, can be traced, to name just one prominent example, throughout Thoreau's idiosyncratic autobiography. As even a cursory reading reveals, Thoreau patterns his philosophic experiment at Walden Pond after the natural flow of the seasons, thereby synecdochically gearing the emergence of his text to that of the pond's blooming landscape in spring. Five years earlier, in the notorious failure *A Week on the Concord and Merrimack Rivers* (1849), Thoreau had couched the same idea in the following unambiguous terms: "As naturally as the oak bears an acorn, and the vine a gourd, man bears a poem, either spoken or done. . . . The poet sings how the blood flows in his veins. He performs his functions . . . as plants put forth leaves and blossoms."³

The notorious belief in the symbolic sameness of poetic and biological creation also loomed large in many of the classic critical studies of American Romanticism and its precursor, Anglo-German Romanticism. A comprehensive account of the organic principle in Romantic writing can be found, for example, in F. O. Matthiessen's pioneering study *American Renaissance: Art and Expression in the Age of Emerson and Whitman* (1941); in M. H. Abrams's seminal study of Romantic critical theory, *The Mirror and the Lamp: Romantic Theory and the Critical Tradition* (1953); and, somewhat later, Morse Peckham's *Triumph of*

Romanticism (1970). More recently, in *Fact and Feeling: Baconian Science and the Nineteenth-Century Literary Imagination* (1994), Jonathan Smith again examines in detail the biological foundations of Romanticist poetics, arguing that Coleridge's organicist understanding of literary creation developed as a discursive act against the cultural supremacy of Baconian scientific paradigms.⁴ Regardless of its obvious import for any literary historian addressing this period, one should keep in mind that the organicist rhetoric of antebellum American writers was itself the offspring of an ongoing and more encompassing debate over the establishment of professional authorship, a debate that cut across the various spheres of political power, technology, economics, jurisdiction, and gender, and was thus closely tied to the cultural and political transformations of modern society at large.

Although I touch on all of these different factors that had an influence on the professional identity of American writers during the first half of the nineteenth century, a major theme of this study is the growing cultural importance of technology and its repercussions in literary representations of authorship. Except for James Kirke Paulding's rarely noted story "The Man Machine," the list of texts I discuss at length is a rather traditional one: stories by Hawthorne, Poe, Melville, and Rebecca Harding Davis (even the last has by now become a minor classic), as well as Emerson's essays, Thoreau's *Walden*, and a sample of both prose and poetry by Walt Whitman. Yet by restricting my focus to the ways in which these texts negotiate the establishment of technology as the dominant societal force, and, simultaneously, their authors' growing entanglement with and dependence on that force, I try to reread them from a very specific and, I hope, refreshingly new point of view.

What I offer as a new angle on the interfaces of technology and authorship in antebellum American literature has little in common with the time-honored idea that Romantic writers, while continuously probing the shifting boundaries between the animate and the inanimate, developed a concept that emphasized the former and denigrated the latter. Rather, my argument runs counter to earlier evaluations of this period that discern a strong technophobic undercurrent in American Romanticism and tend to define its major stance as ambivalent, if not antimachinist, and therefore, by extension, essentially antimodernist.⁵ In contrast to this traditional view of Romanticism, my own discussion

centers on the belief that in antebellum literary discourse there is as much admiration for the technological as there are strains of resentment and cultural anxiety about its deplorable negative effects. As in the case of Poe, for example, the mechanist rhetoric of Jacksonian democracy which he formally espoused and, at the same time, condemned as alien to his poetic purposes informed the composition of his poems and narratives to such a degree that the resulting indeterminacy can hardly be dismissed with tautological references to the incommensurability of Romantic idealizations of nature and the emergence of modern technological society. That antebellum American authors became increasingly obsessed, as we will see, with representations of the body encroached on by technology I take as a sign of the centripetal forces that marked the encompassing technological system and that held in thrall even those writers who, according to more traditional readings, seemed strikingly free of the tainted materiality of bookmaking—or, for that matter, of modern industrial production in general.

To explore fully the implications of what it meant to write under conditions of modernity, American authors of the nineteenth century often had recourse to an imagined *other* or *double*, a hybrid figure that comprised the human as well as the machine, and thus reflected the skein of interpellated relations between authorship and technology.⁶ Because of their structural similarities with twentieth-century representations of the cybernetic body, which, by definition, is a body that successfully incorporates the machine into its system, I have labeled the various transgressions of the biological that readers of American Romanticism repeatedly encounter “Romantic cyborgs.” The way in which I use this strikingly oxymoronic term is meant to designate a variety of meanings.

First, it refers to what we call—since Matthiessen’s influential book—the “American Renaissance,” the literary period that comprises the works of basically all major American Romantic writers and that virtually bustles with cyborgian manifestations of technology.

Second, I mean to evoke the term’s inherent connotation of “romance” as, in its colloquial usage, an emotional versus an epistemic relation. As I will argue, American authors of the nineteenth century were at once repelled by and yet added to what might be called modernity’s emerging romance with the machine. Although never fully developed,

this topic has been pointed out at least fleetingly in Floyd Stovall’s study of the background sources of Walt Whitman, where he holds that “there is no evidence in the poems of the 1855 edition that anything more than the *romance of science* had interested [Whitman] seriously.”⁷ As in all romances, the relationship between Romantic writers and the machine is a rather ambivalent one, and it is marked by moments of euphoria as well as by nagging anxieties and, occasionally, manifestations of sheer terror.

Third, American authors of the early nineteenth century, and certainly not just those categorized as Romanticist, often used the formal conventions of Romance as a literary genre, thereby enabling themselves, according to Hawthorne’s famous definition, “to present [the] truth under circumstances, to a great extent, of the writer’s own choosing or creation.”⁸ Few of the texts I discuss in detail are, to be sure, Romances proper. In order to create their own view of the ongoing technologizing of the modern world, however, they apply the imaginative freedom of the Romance to go beyond the restraints of purely factual representation of social reality.

Finally, by envisioning modern technology as either infused with a life of its own or as infringing on organic life, antebellum authors adumbrate the imagery of the cyborg as it populates so many narratives of our own day (fictional and otherwise). Their historic differences notwithstanding, these earlier, precocious representations of a concept that has since solidified into a full-fledged cultural industry (there is *cyberpolitics*, *cyber-criticism*, *cyber-commerce*, *cyber-fiction*, and, not to forget, the virtual lure of *cyberspace*) are strikingly similar to more recent probings of this uncanny space where the human body interfaces with the non-living and the technological. Even though they clearly lack the sociocultural ramifications of the electronic, postindustrial identity of the cyborg, the man-machines by which our nineteenth-century predecessors negotiated their own (often subconscious) anxieties about the technological nevertheless reveal an astoundingly complex mesh of significations. This very broad scope of differing assessments of what I call Romantic cyborgs ranges from James Kirke Paulding’s man-machine as the epitome of postrevolutionary America to the hybrid organisms created by Hawthorne’s scientist or mechanic-turned-artist figures, from

Poe's narrative machinery to Melville's cyborgian scrivener and Rebecca Harding Davis's lament on the vampirish forces of early capitalist production.

Of the various meanings with which nineteenth-century American literature invested this recurring theme of biomechanical hybridity, it is, however, the interstices and the overlap with the discourse on authorship that will make up much of my argument. Emerging during the second half of the eighteenth century, the debate over the modern profession of literary authorship and its implementation in capitalist society had always been closely connected with the appearance of new technologies. If we look at the invention of the rotating press, which made possible the large-scale production and distribution of handwritten texts, at the typewriter, at photomechanical printing, or, more recently, the word processor, we see that they have all influenced our notion of what it means to be a writer, and they have created considerable anxiety as to how these inventions might affect the status of literary authorship. For writers of the American Renaissance, technological change, more often than not, figured as a driving force in the process of modernization, a process that threatened to subordinate their creative faculties to the inexorable patterns of industrial production and increasingly set the material aspects of literature (the actual production and marketing of the book) against the artistic composition of the text itself. In response to their emerging professional identity, Romantic writers conjured up cybernetic mirror images that captured perfectly and, at the same time, defused the growing tensions between technology and authorship. Since the postmodern figure of the cyborg is itself but a symbolic construct, an imaginary foil onto which we project the imponderable consequences associated with our electronic future, it may help us to understand better—historical differences notwithstanding—the seemingly antimodernist self-representations and conservative rhetorical practices of American Romantic literature.

By positing spaces of biological transgression and ambiguity, authors of the American Renaissance eventually succeeded in making a connection between the new modes of technological production and their professional attachment to older models of writing as organic growth. Because of their composite character, the cybernetic images they used to accomplish this connection can be read as following closely the pattern

of the symbolic construction of identity described by the anthropologist Michael Taussig, the cultural historian Michel de Certeau, and, perhaps most important, by Lacanian psychoanalytical theory. In order to become conscious of its position within the complex framework of modern society, these critics would hold, the subject (either individual or collective) has to rely on its reflection in a projected other, a symbolic mirror image that at once combines aspects of similarity and difference in regard to the original self. If we apply this idea to the often glaringly technological representations of authorship in American Romantic writing, we are hard-pressed to interpret them just as an expression of the writer's wish to distance himself from his materialist surroundings. Rather than a withdrawal from society, technological imagery signals an attempt to incorporate into art—at least symbolically—the changing modes of textual production. In the overarching perspective of this study, then, Romantic cyborgs figure as a heuristic tool in the attempt to reach for what might be called the psychohistorical layerings of the ongoing realignment of discourses on technology and authorship in antebellum literature.

As one can easily see, my argument is grounded in the idea that the texts produced by the major representatives of antebellum literature are not to be read as documents of their authors' autonomy and detachment in regard to their sociocultural and political environment. Nor am I concerned with the notion that the classic writers of this period have earned their prominence in American literary history by either writing off or transcending the sweeping materialism and technophilia of their times. This view of the major writers of the American Renaissance as alienated rebels who held up their lofty understanding of serious literature against the rising tide of mass popular culture (which was itself determined by technical innovations such as the introduction of the cylinder press in 1847) is an integral part of the bulk of critical rationalizations of this period. For many decades, as David Reynolds perceptively observed, literary critics have argued "that the most distinctive characteristic of American literature is its rejection or transcendence of social concerns."⁹ Since my own interest is precisely in how the "profane" processes of modernization affected the professional identity of antebellum American authors (and the imaginative, fictional representations of that identity), I am indebted to an expanding group of studies that reach beyond

the traditional belief in the Romanticist transcendence of, and ultimately autonomy from, the sociocultural complex.

Above all, any new examination of the interfaces of technology and antebellum writing has to pay its dues to Leo Marx's groundbreaking study *The Machine in the Garden* (1964).¹⁰ Although Marx's contribution to the study of technology and its impact on nineteenth-century American literature is awesome, its scope and findings differ from my own in numerous significant ways. Contrary to his view that Romantic writers believed in the redeeming power of nature to negotiate and thus finally neutralize the onslaught of the machine, a concept of nature that Marx fittingly characterized as "middle landscape," I examine the technological predominantly in terms of the growing professionalization of authorship in America. In doing so, I focus on a definition of technology that is at once broader and more elusive than the one proposed by *The Machine in the Garden*. While technology in Marx's portrayal is basically represented by the emergence of a single machine, namely the smoke-spurting, fiery engine of the railroad, I use a more encompassing concept of technology as both a value system and a system of variegated technical applications, or, put differently, as an ideological symbolic pattern and a network of production that involved all levels of antebellum society.¹¹

True, the notion of what has come to be perceived as the pervasiveness and sociocultural complexity of modern technology can already be traced in some of Marx's later works. As he points out in an essay on the development of the idea of technology, sometime during the nineteenth century the public imagery of the "mechanical arts" as typical embodiments of the new power eventually gave way to the modern idea of "technological systems." Evidently contradicting his position taken in *The Machine in the Garden*, Marx proffers as an example precisely the steam-powered locomotive which had long served as the century's leading icon of technological progress. Since the railroad involved so much more than simply operating a "machine," the locomotive could hardly be expected to represent "the manifold character and complexity of the mechanic art of transporting persons and goods by steam-powered engines moving wagons over a far-flung network of iron rails." "To represent such complexity," Marx finally concedes, "that image of a locomotive was no more adequate than the term 'mechanic art.'"¹²

If Marx's more recent works seem determined by an all-encompassing view of technology as sociocultural system, in the magisterial *Machine in the Garden* the symbolic ramifications of this shift of critical paradigms were not yet adequately taken into account. Although antebellum authors obviously believed in the redeeming powers of pristine nature, they were well aware of the overriding effects of modern technology, especially when it came to the profession of authorship. Not all of the changes affecting the American book market of the 1830s through the 1860s were conceived, of course, as related to the invention of new technologies of production, design, and marketing of printed matter. Yet many of the major writers of the American Renaissance felt themselves embroiled in the controversy over technology, and they lamented the disenchanting results of technological progress in regard to the composition of "serious" literature: the proliferation of cheap, saleable romances and novelettes, the urge for serialization, and the increasing pressure to cut down on production time, not just for the material book itself but also for writing and editing the manuscript on which it was based. More often than not, however, these writers also followed the patterns set up by the dominant cultural-industrial complex, and they were keen to adapt—as can be witnessed especially with Poe and Whitman—to the altered conditions of the literary trade.

There is by now a host of critical studies addressing equally the changing conditions of bookmaking during the first half of the nineteenth century and the interstices between writing and other social and symbolic activities. Apart from the seminal yet purely historical examinations of antebellum publishing by William Charvat, which are still among the most reliable sources of data concerning the publication and reception of printed material prior to the Civil War, Nina Baym's survey of early American novels by and about women, as well as her later probings of readers' and reviewers' responses to fiction in antebellum America, are especially noteworthy. Since they extend the range of who should rightfully count as an antebellum author in the first place, Baym's pioneering works make us more sensitive to the interventions of extraliterary factors—such as morality, gender, and nationalist anxiety—in reading and evaluating literary texts.¹³ Following in her footsteps, Jane Tompkins's *New Historicist Sensational Designs: The Cultural Work of American Fiction, 1790–1860* (1985) also questioned the "situatedness" and

ideological character of the classic approaches to Romantic literature, arguing that the so-called deficiencies of many early American texts, such as the influence of popular culture and the predominance of stereotypical plot structures, "did not seem at all deficient to their original audiences," and were in fact the very basis not just for their widespread reception but for their cultural impact in general.¹⁴

That even the "master" writers of the American Renaissance shared in the public craze for cheap, tawdry literature, and that the products of the sensational press as well as various other popular modes and stereotypes were imported into the "literary" texts of Hawthorne, Melville, Poe, and their fellow writers, is the major thesis informing David Reynolds's *Beneath the American Renaissance: The Subversive Imagination in the Age of Emerson and Melville* (1988). Reynolds's book is actually the most explicit attempt to get past the idea that the American Romantics can and should be understood only in light of their preference for universal themes and their formal and structural dependence on classic English literature (hence Matthiessen's label "American Renaissance"). What Reynolds calls the "subversive mode" of antebellum literature, an ever-increasing bulk of "bizarre, nightmarish, and often politically radical" fiction that took its themes directly from the contemporary sociopolitical context, lent to the highbrow Romantic texts a large variety of cultural codes and strategies, thereby allowing them to fuse their messages into ambiguous yet compact, up-to-date images. As Reynolds rightly remarked: "The typical literary text of the American Renaissance is far from being a *self-sufficient text*, sealed off from its environment. It is indeed what one might call an *open text*, since it provides an especially democratic meeting place for numerous idioms and voices from other kinds of contemporary texts."¹⁵

Other critics, such as Michael Paul Rogin, Michael Gilmore, Walter Benn Michaels, Donald Pease, Nicholas K. Bromell, and Joel Pfister, have concentrated more on the economic conditions and the demands of the marketplace as determining factors of antebellum literary production.¹⁶ Although their approach implicitly substantiates the impact of technology on various levels (simply because many of the economic changes described by them were dependent on technologically advanced means of production), the machine as a powerful symbolic and ideological construct of modern society does not figure prominently in their

studies. By shifting their attention, however, to the Romantics' entanglement with the sordid aspects of the rise of capitalism in America, these scholars were in fact proposing a revaluation of Romantic writing and, of course, its criticism, a revaluation that would comprise the major works of American Romanticism as manifestations of certain ideological frameworks rather than representations of individual achievement.

This aspect of ideology, which in its broadest sense signifies the relatedness between a literary text and its cultural, political, and historical context, has forcefully been brought to the fore in Sacvan Bercovitch and Myra Jehlen's collection of essays, *Ideology and Classic American Literature* (1986). As Jehlen makes clear in her historical survey of the term, although "ideology"—especially through its nineteenth-century Marxist adaptation—would soon become a tag for all sorts of determinist sociopolitical paradigms, it has by now acquired a more acceptable if not positive meaning. Concurrently, the basic concept of ideology epitomizes the importance of such factors as race, class, and gender, and it seems to question further the possibility of disinterested, transcendent literary and critical statements. "From its Enlightenment origin in a vision of infinitely free ideas, *ideology*," according to Jehlen, "has become a term that mediates the finite entities of text and context, and also of individual author and cultural history; that is a term that demarcates the limits of individualism and the imagination."¹⁷

Jehlen's understanding of ideology as encapsulating the epistemological limitations of the modern idea of authorship—that is, the author's ostensible cultural independence and creative originality—is informed by the Marxist philosopher and critic Pierre Macherey, among others. Macherey is convinced that the conditions that determine the production of the book also determine "the forms of its communication," which is just another way of saying that the writer's style, however inventive and original it may appear, is by necessity geared to the cultural situation from which it arises, yet by which, one should add, it cannot be completely contained. This unresolved doubleness or ambiguity of Macherey's theory of literary production is particularly suited to describe the structural and thematic entanglements of antebellum American literature and the evolving technological system.¹⁸

What I will show, therefore, is that the emerging ideology of modern authorship constantly informs the major works of the American Renais-

sance, not because, as we usually assume, it was the Romantics who created this ideology, but because its basic premises—the writer's originality and his exemption from the material constraints of capitalist production—were by then already out of sync with the structural and economic development of antebellum society. As Morse Peckham once noted, "Ideology is always out of phase with the situation in which it is employed, for an ideology has always emerged as a response to a preceding situation, the attributes of which are different from those of the current situation."¹⁹ Peckham sees all of the major themes of Romanticism (its obsession with nature, the exaltation of feeling and sentiment, the picturesque, and so on) as, in fact, contained in and propagated by the Enlightenment. Hence the Romantics' idiosyncratic manner of handling these topics was meant "to provide a justification for the innovative creation of value, for finding sources of one's own value in configurations not sanctified by existing social institutions and existing ideologies."²⁰ In other words, the Romantic emphasis on individual creativity and the inexhaustible resources of the self indicated that the existing value systems, though based on the sovereignty of the rational subject, were no longer able to provide conduits for artistic self-ascription.

As much as Romantic writers rebelled against the encrustations of Enlightenment ideals, they also struggled to position themselves within a cultural framework that increasingly valued the technological foundations of modern society. Given the pervasiveness and, what is more, rhetorical fervor with which nineteenth-century Americans embraced technology as the new driving force of cultural development, the literary writers of this period were clearly at a loss as to how they should define their professional identity. Technology not only challenged the assumed autonomy of the modern author at the very moment of his establishment as an integral part of the social and economic infrastructure, but also offered a symbolic language that stressed the growing importance of mechanistic cultural paradigms as well as the ultimate replacement of the body by the machine.

That the writers of the American Renaissance adopted the imagery of the man-machine, which was handed on to them through the lingering influence of mechanical philosophy, and, in a second step, reworked it into a powerful metaphor of individual and cultural transition, seems to corroborate Macherey's description of the literary work as a structurally

open yet, at the same time, ideologically determined mode of representation. By continuously conjuring up what I call Romantic cyborgs, antebellum literature symbolically opened up sites of indeterminacy, imaginary spaces that were to reflect the diversified and conflicted relations between the human and the technological. From this perspective, then, American Romanticism must be treated also as an attempt to negotiate the contested cultural authority of two rival ideologies: the modern notion of authorship and the evolving concept of the machine as all-encompassing technological system.

The Ideological Foundations of Modern Authorship

The artistic-project of negotiating the divergent forces of modernization involved technology on a number of different levels. In his famous lecture on authorship, Foucault insisted that an author is not simply the historical person who has produced a written text but also in a very literal sense an ideological product. As a discursive figure, he or she is *authorized* by various interacting ideological positions, one—and certainly the most influential—of which is the idea of the author as "genius, as perpetual surging of invention."²¹ If, according to Foucault, the notion of authorship must be viewed as socially constructed, it was also, to be sure, the technology of printing, with its emphasis on written (versus orally transmitted) information, that had paved the way for the author's sociocultural initiation into modern society. The close relation, for example, between the spread of Enlightenment thought, on the one hand, and the advancement of printing technology (especially the advent of the handpress) and the concomitant surge of publishing activities during the latter half of the eighteenth century, on the other, has convincingly been made apparent by scholars such as Robert Darnton and Elizabeth Eisenstein.²² Yet the technology of print contributed to the development of the modern understanding of authorship in more than just the technical sense of facilitating the production and dissemination of essays, pamphlets, books, and other forms of printed matter. It also, as Marlon Ross has observed, shifted authority away from the written text to the writer, thus laying the groundwork for a new evaluation of what it means to be an author.²³

According to Ross, the way in which Western societies confer author-

ity on their writers has been subject to numerous sociohistorical changes, many of which were closely related to the invention of new technologies of writing and printing. In medieval (scribal) cultures, where the dissemination of handwritten copies had always been tied up with the process of transmitting sacred truths, authority was derived first from content—the translation of the holy text—and second from the uniformity and therefore readability of the reproduction. This latter aspect, as Ross points out, “the art of making writing legible, then, is also a political act; the act of claiming or declaiming a culture’s authorities.”²⁴ As one can immediately see, any irregularity regarding the form and style of the reproduction would by necessity detract from the sacredness of its content and thus call into question the authority that legitimizes and, at the same time, inspires the writer’s hand. With the debut of the printing press, however, the relation between authority and uniformity is reversed. If we follow Ross’s discussion of eighteenth-century print culture, to be *printed* now becomes the primary marker of cultural authority. It is therefore no longer the text as such that, by way of its sacrosanct mythopoetical origins, lends power and esteem. Rather it is the achievement of making public one’s private mind and thoughts, thereby distinguishing the self “by virtue that [one] has written; that [one’s] scribblings have been scripted, that [one’s] script is made overly and overtly legible through the technology of print.”²⁵

Without such technological advances in printing and the accompanying sociocultural premium put on the products of the printing press, it would have been nearly impossible to adopt the idea of originality into literary and legal discourses on authorship. From the very moment of their inception, the improved means of printing have necessitated a separation of the authentic and original work on the one hand from the sham, mechanically reproduced copy on the other. If the increasing output of reprinted material worked to introduce a more complex view of the activity of publishing, it also worked to redefine the criteria of authenticity and originality in regard to the writing and composition of literary texts. In his famous “Conjectures on Original Composition” (1759), whose neglect by English critics sharply contrasted with its tremendous influence on the German Sturm und Drang movement, Edward Young was among the first English writers to call for the critical recognition of novelty and originality as defining categories of the work of art.

“Originals,” he declared, “are, and ought to be, great favourites, for they are great benefactors; they extend the republic of letters, and add a new province to its dominion. Imitators only give us a sort of duplicates of what we had, possibly much better, before; increasing the mere drug of books, while all that makes them valuable, knowledge and genius, are at a stand.”²⁶

Young’s plea for original productions deserves to be examined closely. As can be easily seen, his argument relies on the juxtaposition of two divergent meanings of *growth*: in the first instance, the term marks a merely material increase in the numbers of books available, while its second meaning signifies an enhancement of knowledge, a proliferation of ideas as yet unknown, and therefore of intrinsic value, to any contemporary reader. If it is true, as Martha Woodmansee puts it, that the printing press was instrumental in turning the individual writer into an author, it did so by privileging the quantity of printed books over the quality of writing itself.²⁷ By deploring the fact that “the lettered world no longer consists of singulars, [that] it is a medley, a mass; and a hundred books at bottom are but one,” Young directly addresses the unrestrained dissemination of printed matter.²⁸ In order to counter the material onslaught of books that are basically “duplicates of what we had,” which is among his major concerns in “Conjectures,” it seemed but logical to dissociate the mechanically manufactured from the truly inspired original text. Whereas the latter, according to Young’s antitechnological approach, is of a vegetable nature (“it grows, it is not made”),²⁹ the former is fabricated in a purely technical manner.

Consequently, Young denounces the imitative artist as a sort of mechanic, a manual laborer who manipulates and pieces together material that is already there. “Imitations,” says Young, “are often a sort of manufacture wrought up by those mechanics, art and labour, out of pre-existent materials not their own.”³⁰ We are thus confronted with the somewhat paradoxical situation that the grounding of modern authorship in the idea of originality must be treated as, first, a product of certain technological changes (among which the improvement of the means of printing is but one, if admittedly major, factor); and, second, as an agent of resistance to these changes, or rather to the advancement of technology and the mechanical worldview at large.³¹

Whereas Young’s “Conjectures” reflected the eighteenth century’s cul-

tural biases vis-à-vis the gradual establishment of print culture, by 1819—the year Irving published his *Sketch Book*—the anxieties associated with the large-scale production of books seem to have increased even further. Although until the 1820s literary publishing in America, according to Charvat's crucial study, remained local and decentralized, the commercialization and, concomitantly, professionalization of the book trade proceeded with great rapidity.³² And so did the number of books published,—augmented by the newly invented technique of stereotyping (1813).³³ Given the accelerated growth of the professional book market, it should come as no surprise that Irving began his sketch on the trials of modern authorship with the sarcastic remark, "I have often wondered at the extreme fecundity of the press, and how it comes to pass that so many heads on which Nature seemed to have inflicted the curse of barrenness, should teem with voluminous productions."³⁴ Like Edward Young, Irving takes aim at the waning of originality in contemporary literature, even though his critique of the modern writer's reliance on ancient authors, coming from an American and thus a representative of a fledgling nation, rings with a distinct nationalist undertone that could equally be read as an act of rebellion against the lingering cultural supremacy of the Old World.

"The Art of Book-Making," which Irving conceived during his extended visit to England, is set in the Main Reading Room of the British Library, where the narrator encounters a group of contemporary authors fully absorbed in the process of pilfering the works of their predecessors. The narrative, of course, is hyperbolic; yet the wording and metaphors that Irving uses to depict the outright eclecticism of modern art deserve our attention. In contrast to the enchanted, pseudo-medieval appearance of the library, the "predatory" work of the writers is represented in modern terms. The authors are portrayed as engaging "in the very act of *manufacturing* books; it looks as if they are "*constructing* some work of profound erudition." As for the narrator, his interest having been aroused by the strange proceedings, he sits down in a corner and observes "the process of this book *manufactory*."³⁵ By conjuring up a view of literary composition that identifies imitation—that is, the sham, eclectic book constructed in piecemeal fashion out of forgotten texts—with mechanical reproduction and the work of the hand rather than the work of the mind, Irving set the register for an extensive ante-

bellum literary discourse on the increasing entanglements of authorship and technology.

What is more, in order to state with utmost clarity his claim as to the inferiority of many modern literary productions, Irving employs a variety of telling sexual metaphors. Thus, if modern authors repair to the works of their literary "fathers" for inspiration and replenishment, it is because they are cursed with "barrenness," an explicitly sexual term that signifies their dwindling creative resources. Priapic imagery of this kind can be found throughout "The Art of Book-Making." Its sexual troping finally culminates in the incestuous scene quoted as the epigraph to this chapter. In what readers today might rightly interpret as an intriguing example of Harold Bloom's thesis of literary influence, the passage invokes a great chain of authors who, in accord with the laws of nature, beget authors and of writers who "sleep with their fathers, that is to say, with the authors who preceded them, and from whom they had stolen."³⁶ It is worth noting that plagiarism has its roots in the Latin *plagiarius*, which signified a "kidnapper" or "seducer" as well as a literary thief. To borrow intentionally from the ideas of another writer might thus be described, according to Stephen Rachman, as an act of kidnapping or assuming "false fatherhood."³⁷ What Irving then acknowledges here, with a candor that will determine much of the rhetoric of antebellum American literature, is that writing in Western culture is best defined by its similarities to the power of procreation, and that therefore the pen of an original writer, as Sandra Gilbert and Susan Gubar have suggested, was often considered "a metaphorical penis."³⁸

Although pertaining to works of art in general, sexually explicit conceptualizations of the inventive process are especially endemic in the realm of writing. Consider only the *terminus technicus* for the one who writes, the *auctor*, or, in its modern variant, the author. It is indeed striking how the cultural ascription of literary composition as an act of engendering rather than just constructing the written text coincides with the very beginning of prose writing itself. In one of the earliest discourses on the effects of literacy, Plato's *Phaidrus*, writing is already described as an act of dissemination, of "sowing immortal seed."³⁹ And according to Edward Said, an author has traditionally been understood as "a person who originates or gives existence to something, a begetter, father, or ancestor, a person also who sets forth written statements."⁴⁰

More significantly, perhaps, than being simply a metaphor for the allegedly male forces of genius, the capacity to beget, to *father*, a text is closely imbricated with the idea of literary originality or, put differently, the proprietary economic relation between writer and text. If we follow Said's analysis, *auctoritas* or authorship literally signifies invention and production, the power of "an individual to initiate, institute, establish." Hence, the product of this power, the written text, is always something *new*, that is, again in the words of Said, an "increase over what had been there previously."⁴¹

Increase and the production of new ideas thus become key terms of modern authorship; the true author, according to these modern rationalizations, is believed to create *ex nihilo*, or, as Edward Young aptly put it, "the pen of an original writer . . . out of a barren waste calls a blooming spring."⁴² Yet the network of connections between writing and the genealogical imagery of procreation was also instrumental in implementing the idea that the writer authorizes or has legal authority over his fictional creations. "If the author/father is owner of his text and of his reader's attention," Gilbert and Gubar observe, "he is also, of course, owner/possessor of the subjects of his text, that is to say of those figures, scenes, and events—those brain children—he has both incarnated in black and white and 'bound' in cloth or leather."⁴³ Hence, it was mainly by foregrounding this gendered conception of ownership, of literary *paternity*, that the modern view of the writer as originator and, concurrently, spiritual and economic proprietor of his text was being established.

Technology and the Romantic Politics of Disembodiment

What are the implications of this gender-oriented definition of literary work for my discussion of technology and the emerging professional identity of the modern author? As I pointed out earlier, the establishment of literary authorship within the socioeconomic network of modern society required its differentiation from other highly specialized areas, such as, for example, the increasingly dominant sphere of the technological, and it rested on a rationalization of the inventive process as being exempted from the materialist exigencies of capitalist production. The idea of authorship, in other words, developed along the lines

of strong antimaterialist biases that emphasized the spiritual over the physical implications of writing.

Moreover, its social demarcation as being primarily engaged in the representation of lofty philosophical ideas (rather than the tedious articulation of the real) directly reflects its aloofness in regard to the body—an aloofness crucial to most of the sexual metaphors that were used to delineate literary activity. Although replete with physical tropes of various sorts, the rhetoric of the writer as progenitor or father of his text never actually conflated the human body itself with the processes of textual procreation and production. For both writers and anatomists, the act of creation was primarily spiritual and only secondly depended on the materiality of the body. In his comprehensive study of attitudes toward sex, gender, and the body in Western cultural history, Thomas Laqueur points out that discourses on biological reproduction usually stressed the ethereal, non-sensory (male) over the purely corporeal (female) contributions to procreative processes. Made visible through the agency of biological tropes, fatherhood, and, by inference, the artist's paternity in regard to the ideas he engenders, was nevertheless conceived as representing basically—in Freud's later terms—a conquest of intellectuality over sensuality, of the more elevated and refined over the less refined material forces of human nature.⁴⁴

If we consider the synecdochic relationship between writing and engendering as well as the emphasis placed on spiritual aspects of procreation, it is only logical that the body should be seen as an impediment to the writer's work, an obstacle that cannot be wholly eliminated and that therefore must be heeded with especial care. Echoing both the contemporary mechanist view of the body as a machine and the notion that writing is metaphorically exercised with the body's *vital* parts, the English poet John Armstrong advised the scholars and philosophes of his day "to stand and sit by turns / As Nature prompts," because "o'er your leaves / To lean forever, cramps the vital parts, / And robs the fine machinery of its play."⁴⁵ While the remedy prescribed to counter the weaknesses of the body engaged in writing is a simple one, the message implied here is at least equally apparent: the imagery hinges on the antagonism of mental creativity on the one hand and the demands of the body on the other, thereby suggesting a division between the unhealthy work of the mind and the physiologically more appropriate

work of the hand. From the viewpoint of eighteenth-century medical discourse, the only naturally healthy people, as Carol Flynn has shown, were the poor, the laborers, and the working class, in short, anyone whose intellectual faculties were not well developed and who was thus forced to make his living by exercising the physical parts.⁴⁶ Ironically and somewhat paradoxically, the organicist concept of writing evolved out of the ideological framework of a dichotomy between mind and matter that conceived of the body as interfering with the spiritual work of the writer and thus helped to denigrate the very site where nature enacts the biological processes that were taken to signify artistic creativity.

Not surprisingly, then, in dealing with the body as a symbolic foil rather than a biological entity, we find the same antimaterialist biases at work that were essential to differentiate the modern profession of authorship from other specialized forms of social activity. Although it has always been issues of technology, politics, and economics that have determined the range of distribution and accessibility of literary texts, the scholarly assessment of their history and development has remained, until quite recently, conspicuously silent as to these material factors of textual production.⁴⁷ The obvious materiality of its subject notwithstanding, traditional literary scholarship has obstinately concentrated on the allegedly “timeless” content or, in Wordsworth’s famous phrase, on certain “classes of ideas” embedded in the textual product, ideas that were thought to be miraculously free of any contamination by the materiality of the medium itself.⁴⁸ In leaving the investigation of the material side of book production to specialists other than literary scholars (i.e., historians of culture and economics), practitioners of academic exegesis only replicated the disregard of literary authors for the complexity of actual bookmaking, which involves, after all, textual technologies such as editing, printing, engraving, and, perhaps most important of all, the marketing of the finished product.

Concomitant with its representation as an intrinsically male act of engendering, writing was thus also conceived as a disembodied process, in other words, an effort to transcend both the bodily confines of the writer and the material constraints of the text to be produced. That the Romantic poetics of disembodiment were closely tied to contemporary discussions of technology and its impact on the cultural status of the author can be seen in Hawthorne’s metafictional short story “The Artist

of the Beautiful” (1844), to pick just one telling example. The story, which had rarely been considered in terms other than as a reiteration of the major tenets of transcendentalism and, of course, Hawthorne’s distrust and critique thereof, juxtaposes effectively the materialist foundations of modern technological society and the ethereal, disembodied ideals of the Romantic writer. Resonating with references to early industrial manufacturing and the premium that Jacksonian America placed on punctuality and the utilitarian ideal of the “useful” arts, “The Artist of the Beautiful” is steeped in the cultural changes concurrent with rapid technological advancement and the burgeoning of the American economy. Not only does Hawthorne apprehend the cultural conflict between the *practical* and the *beautiful* by creating a character who is both, that is, watchmaker and artist, but also he has his protagonist embark on a symbolic project that defines many of the antebellum literary representations of authorship. In search of a material form for his aesthetic ideals, Owen Warland builds a synthetic creature, a mechanical butterfly, which reflects his artistic ambitions as well as the difficulties arising from his ambivalent professional status.

In fact, this allegorical text hinges on a portrayal of the body as the antithesis of everything that is beautiful and aesthetically important. Once Owen has set his heart on the realization of an abstract concept, biological life matters only insofar as it is instrumental to the accomplishment of his task. Since the technological—and the body as its physico-material counterpart—operates in direct opposition to the artist’s ethereal strivings, the story as a whole might well be taken as a Romantic attempt to amalgamate the divergent forces of modern society. The ironic and ambiguous ending, which leaves many readers puzzled as to the true relation of art and nature in the story, would thus refer to the inclusion—rather than exclusion—of technology in the realm of artistic production, and it might figure as an indication of the involvement of even the most conservative of antebellum authors with the dominant materialist forces of American society.

To investigate their own position within the cultural framework of modernity, antebellum writers frequently created imaginary zones of contact between the human and the technological—Romantic cyborgs, as it were—thus allowing for the dramatization of their repulsed flight from the body which they took as a symbolic marker of the materialist

preference for matter over ideas. By the same token, authors of the American Renaissance often conflated the mechanical processes they saw at work in both the body and contemporary society and highlighted the act of writing as a conduit for their critique of the modern downsizing of the imagination and the spiritual aspects of life in general. In many of Poe's major tales, writing figures prominently as a means of overcoming the frailty of the flesh and the restrictions that the temporality of the body imposes on the Romantic author. Obsessed with representing human physicality through frequent reenactments of death, these texts turn on the very moment when the body relapses, ultimately and relentlessly, into pure materiality. Their various poet figures are horrified by the specters of physical deterioration and the subsequent extinction of the body; yet through some agency of writing and/or reading, they repeatedly manage to conjure up mirror images, distorted doubles of the deceased biological models who survive solely in the imagination of their haunted authors. In "Ligeia," where the effect is heightened by the victim's own irrepressible desire to use writing as an antidote for the approaching terrors of death (Ligeia has the narrator recite a poem of her own throughout the deathbed scene), it is only the poet's creative faculties that conquer the threat of biological annihilation and thus ultimately provide the mind with that soothing form of remembrance (or doubling) that Poe so excessively enacts. It is important to notice, however, that the process of calling forth imaginative doubles itself follows a mechanical, automated pattern which can be viewed (as we shall see in chapter 3 on Poe's technology-centered poetics) as a reflection of his attempt to "objectify" the theoretical foundations of narrative and, thus, to gear the author's work more closely to the growing technologization of the sociocultural environment.

His narrative and structural embrace of technological paradigms notwithstanding, Poe also seems to insist on writing as a viable alternative to the ongoing progress of science and technology. Like many of his antebellum fellow writers, Poe came to conceive of technology as an irresistible force, a utilitarian juggernaut that must be balanced by the creative spirit of the true artist. As he claims in "The Colloquy of Monos and Una," the advances in modern science and the practical arts in general are but chimeras, an actual "retrogradation in true utility," and it is the poet's fate to live and perish "amid the scorn of the 'utilitarians.'" ⁴⁹ Or

consider his treatment of the same topic in his "Sonnet—To Science": "SCIENCE! True daughter of Old Time thou art! / Who alterest all things with thy peering eyes. / Why preyest thou thus upon the poet's heart, / Vulture, whose wings are dull realities?" ⁵⁰ Here, as in many of his philosophic tales and poems, science is depicted as obstructing rather than opening up new avenues of knowledge. Its rigorous but short-sighted methodology becomes the hallmark of intellectual vandalism, a token of enormous power to be sure, yet a power that is concerned solely with "dull realities."

Invariably, Poe evokes images of the body as being defined and, simultaneously, "used up" by modern technology. In what is perhaps the first portrayal of a true cyborg figure in American literature, the prosthetic protagonist of "The Man That Was Used Up" (1839) adumbrates and pushes to its limits the postmodern vision of a technologically enhanced human body. In its satirical treatment of a character who vanishes completely behind his numerous artificial body parts—even his voice, the only guarantor of the man's actual existence, is supported by a "somewhat singular-looking machine" ⁵¹—the story takes issue not only with the dominant ideological belief in the redeeming agency of technology but also with the Romantic idea that the body is of lesser import, or rather that it is possible to exist without a body at all.

Poe's strategy of metaphorically conflating the body with the technological is by no means idiosyncratic. It is informed by and reflects the influence of mechanical philosophy and the mechanistic descriptions of the human body that became popular during the latter half of the eighteenth century. That mechanical paradigms of nature as well as of human society had been strong in the early decades of the republic can be gleaned from the awe and veneration with which Americans responded to David Rittenhouse's mechanical planetarium (1770), an invention that earned him the sobriquet "the American Newton," or from Nathaniel Bodwitch's efforts to translate, in the same year of its publication in France, the four-volume classic of the mathematical astronomer Pierre Simon Marquis de Laplace, *Mécanique céleste* (1814–17). ⁵² In fact, to many Americans, as John Kasson has noted, "the characteristic qualities of mechanization—regularity, uniformity, subordination, harmony, efficiency—appeared to offer a model for government and society in general." ⁵³ Since the mechanical worldview was based on the notion of an

orderly universe, it served to fulfill the need for law and order concurrent with the establishment of an egalitarian, democratic society.

As early as 1786, Dr. Benjamin Rush, founding member and first president of the United Company of Philadelphia for Promoting American Manufactures, extended the structural pattern of the machine into the realm of public politics. "I consider it possible," he wrote in a proposal for American education, "to convert *men* into republican *machines*. This must be done, if we expect them to perform their parts properly, in the great machine of the government of the state."⁵⁴ Rush, who had signed the Declaration of Independence and is said to have inspired as well as bestowed the title on Thomas Paine's *Common Sense*, was among the many early Americans to welcome the machine as a symbol of well-regulated, controllable behavior, a role model that allowed the Puritan dream of the mind's ultimate triumph over the body to come true. As educator, reformer, and physician, Rush deemed nothing more appalling than the loss of self-control. To counter the evil influences of both the environment and the body on the moral faculty of the individual, he even designed a crude little machine, called the "Tranquilizer," with which he "treated" all kinds of aberrant behavior, including symptoms of manifest mental diseases.⁵⁵ Ironically, then, Rush's endeavor to apply technology—as metaphor and as actual medico-technical device—for his educational and experimental purposes betrays a convergence between the machine and contemporary cultural biases against the body.

Since technology represented the antithesis of the "natural" and organic, it was increasingly interpreted as a means to free the mind of the devastating impact of its physical confines. Given the incalculable risks and abominable temptations lurking within the body, it needed to be disciplined by the relentless work of a machinist pedagogy.⁵⁶ Through an interesting twist of signifiers, technology and the machine thus came to serve as allies for achieving the dominance of mind over body, of the self-regulating mental faculties over the morbid and rampant desires of the flesh.

It would be only a few decades, however, before Thoreau would expose the synecdochic conflation of machinery and state as tyrannical and therefore essentially un-American. The rhetoric as well as many of the arguments presented in his celebrated essay "Resistance to Govern-

ment" (1849) seem to respond directly to Rush's republican technopia. Voicing his disgust about the degree to which the heirs of the great Revolution have been turned into corrupt little machines, Thoreau dismisses the "perfect" citizen as a republican golem, an artificial monster that "command(s) no more respect than men of straw or a lump of dirt." As he writes in his classic protest against the government's interference with individual liberty: "The mass of men serve the State thus, not as men mainly, but as machines with their bodies. . . . They put themselves on a level with wood and earth and stones; and wooden men can perhaps be manufactured that will serve the purpose as well. . . . Yet such as these even are commonly esteemed good citizens. . . . A wise man will only be useful as a man, and not submit to be 'clay.'" ⁵⁷ What Rush took to be the ultimate manifestation of republican ideals, that is, the controlled, regular operation of citizens as machines, Thoreau identified as a token of mental tyranny and, perhaps even more telling, political *inefficiency*. As this latter term suggests, in his allegiance to the free and self-reliant character inherent in the American people, Thoreau himself makes ample use of a number of machinist tropes, and he invariably subscribes to the politics of disembodiment that became so prominent in Romantic discourse.

When Thoreau accuses the mass of Americans of serving the state not as men but as "machines with their bodies," his analysis does not merely rest on the Cartesian division of mind and body, or rather the lack of "conscience" which he found prevalent in most so-called good citizens; it also plays on the alleged symbolic proximity of the physical and the machine. Whereas in Rush the machine connotes the necessary suppression of bodily desire, in Thoreau his law-abiding fellow Americans are transfigured into mindless slaves to the brute machinery of an unjust power structure. Time and again Thoreau applies technological imagery to describe the operation of state institutions as well as to promulgate his own antinomian position: "If the injustice is part of the necessary friction of the machine of government, let it go, let it go; perchance it will wear smooth—certainly the machine will wear out." When the evil forces intrinsic to all governments have managed to grab hold of "a spring, or a pulley, or a rope, or a crank," then the time has arrived, Thoreau advises his sympathetic readers, to "let your life be a counter friction to stop the machine."⁵⁸

In order to comprehend the tangled skein of attitudes and responses to technology in antebellum America, one must therefore be aware that the machine did not just figure as the icon of a new era, a technological future that many Americans were eagerly seeking. It also represented an important epistemological paradigm with ramifications for almost every area of human knowledge, and, what is perhaps more important, it coincided with the contemporary politics of disembodiment. As critics have repeatedly observed, there is a direct relation between the development of modern capitalist society with its technological foundations and the repression and stigmatization of the body. With the increasing use of machines to substitute mechanical for human labor, negative feelings toward the body arose as well. As the United States, in the words of the psychohistorian Ronald Takaki, "became more and more industrialized in the nineteenth century, it became more and more repressive."⁵⁹

At this point we should recall that the Romantic concept of writing as a quasi-organic act of procreation was developed along the lines of strong materialist biases and that Romantic artists repeatedly construed the physical parts as adversaries of the creative process. It is precisely this negative attitude toward the body, I would suggest, that made technology intriguing even to the loftiest of antebellum writers. Since the technological encapsulates a promise eventually to replace the body altogether, it was well suited to support—at least metaphorically—the Romanticist striving for the spiritual and ethereal. What is more, it would serve to articulate the cultural anxieties arising from America's rapid transition from a pastoral garden to a full-fledged capitalist marketplace. As technology, to use David Nye's congenial phrase, became the American way of experiencing the sublime—that is, the coupling of the awe-inspiring manifestations of human technical achievement with the awesome and spectacular in nature (as in the railroad, the Erie Canal, the bridge traversing Niagara Falls, and so on)—it also became a symbol of the encroachment on, and ultimate displacement of, the body by the machine.⁶⁰

Cyborgs and the Cultural Production of Meaning

Before I continue to trace more thoroughly the correspondences between the history of authorship in America and its growing entanglement with

the new forces of technology, it is important to ask *why* cybernetic bodies were constantly conjured up in the emerging technological ecology of American society and *how* they came to represent ideal spaces for negotiating the contested ideologies of authorship and technology in antebellum literature. To position my explorations of cybernetic imagery in American Romantic writing in a contemporary theoretical framework, I turn here to several critical assessments of the cyborg as epitome of the technological deconstruction of biology and the social order. Although there was, of course, no such thing as a "cyborg" during the first half of the nineteenth century, my application of that term is valid because, as I will show in the following chapters, cybernetic images abounded in the literary culture of antebellum America.⁶¹ By calling them "Romantic cyborgs," I mean to establish, however, more of a symbolic than an ontological lineage with their postmodern, posthuman relatives.⁶² Their contemporary biochemical incarnations notwithstanding, cyborgs are primarily fictional constructs, products of the cultural imagination that invented them in order to try out new forms of composite identity and, at the same time, to affirm human control over the technological. Given its special import as a fictional representation of cultural stereotypes, the imagery of the man-machine may be taken, therefore, as a heuristic tool suitable for investigating the psychohistorical foundations of the ongoing realignment of discourses on technology and authorship in early nineteenth-century America.

In a seminal essay Katherine Hayles has noted that the cyborg today has definitively left the realm of the grotesque and of science fiction: "Made flesh and blood by colonizing [i.e., biogenetic] techniques that earlier ages could scarcely have imagined, it is no longer a xenophobic monster but a designer organism whose natural habitat is the laboratory cage."⁶³ Yet it is not only with reference to the artifactual bodies of the laboratory ("chimeras," as they are called in bioengineering lingo) that we can speak of the emergence of cyborgs as postmodern reality. "By the late twentieth century, our time," claimed Donna Haraway, "we are all chimeras, theorized and fabricated hybrids of machine and organism; in short we are cyborgs."⁶⁴

Clearly, Haraway does not mean to say that all postmodern men and women have actually turned into the kind of *Maschinenwesen* that readers of science fiction are so well acquainted with. Rather she points to

the fact that the cyborg has finally captured much of the contemporary cultural imagination at large. Spawned by a flourishing industry of what Gabriele Schwab has dubbed "imaginary *cyborgization*," the cybernetic, artificially manipulated body by now "affects practically all social spheres."⁶⁵ As leading characters in blockbuster productions such as *Robocop*, digitalized techno-mutants in avant-garde performances (Laurie Anderson), executive cybernauts doing business on the World Wide Web of electronic marketing, or as the distorted bodies of cosmetic surgery, cyborgs simultaneously represent and interrogate the dwindling boundaries of postmodern identity. Since their existence can only be credited to technological manipulation, they make apparent in unmistakable terms the power of advanced technology to challenge the limits and definitions of the organic or natural body. On one of its various semantic levels, then, the proliferation of cyborgs in postmodern technocultures such as in the United States refers us once again to the Western epistemological tradition of construing the body as a living machine, as a biochemical entity that can easily be subjected to technological transformation.

On yet a different level, however, the preeminent place that cyborg figures occupy in contemporary culture might also be read as an indication of a more liberating development. Intrigued by its symbolic potential, radical feminists such as Haraway have adopted the imagery of the cyborg as a means of envisioning a world beyond the limitations of race, class, and gender. For Haraway, who was trained as a biologist, the innate heterogeneity of the cybernetic organism (as well as its representations in popular and commercial culture) is apt to demythologize the biological markers of what is *natural* and what is not. Since the cyborg is essentially a hybrid figure, a being/sign that is at the same time real and fictional, human and non-human, natural and technological, it may well be taken to represent the artificiality and constructedness of the various concepts (e.g., nature, humanity, bestiality, technology) which it incorporates. Nature, for example, can no longer be simply related to human, organic, or non-artificial species in general. As Haraway points out:

Nature for us [as humans] is *made*, as both fiction and fact. If organisms are natural objects, it is crucial to remember that organisms are

not born; they are made in world-changing technoscientific practices by particular collective actors in particular times and places. . . . If the world exists for us as "nature," this designates a kind of relationship, an achievement among many actors, not all of them human, not all of them organic, not all of them technological. In its scientific embodiments as well as in other forms, nature is made, but not entirely by humans; it is a co-construction among humans and non-humans.⁶⁶

By thus calling into question the myth of a genuinely "human" identity, the man-machines of contemporary discourse function in a twofold way. First, they lay bare the composite artificial structure of *naturalized* oppositions such as nature/culture, human/non-human, male/female, and they serve as utopian projections of a world in which these oppositions have been resolved into patterns of cooperation and partnership. Second, cybernetic bodies seem to provide sites of cultural indeterminacy that call forth radical ideological concepts and allow for the constant reenactment of the many fantasies and fears associated with the shaky status of the "posthuman" self.

It is this latter dimension of the cyborg as the focal point of contemporary debates over defining the self in a highly technological environment which is important here. Since cyborgs, as I have pointed out, act as synecdochic representations of technology, they fulfill above all a symbolic function. Ontologically, according to Haraway, the cyborg is "a hybrid of machine and organism, a creature of social reality as well as a creature of fiction."⁶⁷ As a fictional construct, cyborgs "populate worlds ambiguously natural and crafted," and they do so as a reminder of the polymorphous nature of reality and, especially, the constructedness of what Haraway calls "border wars," that is, the ideological struggle over the differences between natural and artificial, mind and body, male and female, organism and machine.⁶⁸ From this perspective, then, the cyborg body, in the words of Gabriele Schwab, "becomes a text, a screen onto which cultural fantasies, desires, fears, anxieties, hopes, and utopias are projected. Cybernetic organisms inspire such projections because they are products of a technological, or artificial, manipulation of the body."⁶⁹ In order to probe the psychohistorical dynamics of the various discourses over technology (an approach that tries to go beyond the traditional dichotomy of utopian versus dystopian

readings of the technological), Schwab defines the artificial body as “a field of cathexis, an imaginary screen onto which psychic energies from the most archaic to the most current may be projected.”⁷⁰

The way in which we approach the cyborg is thus largely independent of its “real” implications for quotidian life. Far from being judged according to what they are, namely an icon of the ongoing encroachment of the technological, cyborgs figure as actants in the increasingly complex process of defining subjectivity in the electronic, posthuman age. By the same token, cyborgs can be seen equally as symbolizing “collective fantasies” (Schwab) and as products of the individual imagination. In each case they fulfill their symbolic function through a strategy of doubling and mirroring, that is, in a very literal sense, by means of fiction. As distorted representations of both the human and the technological, cyborgs expose the ideological foundations of these concepts by transferring them onto the level of pure signification. In other words, they allow us to articulate metaphorically what cannot be articulated literally: the concept of human identity.

Since identity (personal, cultural, professional) has no essence of its own, it can only be grasped indirectly, that is, by way of projecting an other or double of the original self. If it is true, as many postmodern critics have argued, that the concept of identity and the concept of fiction are closely related in that both rely on the construction of stories (without the fictional framework of collective or individual storytelling, such as myth, history, autobiography, and so on, the concept of identity would be impossible), then we must acknowledge the symbolic universality of the cyborg as a continuing dramatization of the modern self vis-à-vis the technological system. Apart from their historic and cultural specificity, cyborgs—because of their composite nature—illuminate the limits and the ideological character of Western notions of identity, and they bring to the fore the mimetic processes that are at work in the formation of the subject. As projected mirror images of technological man, cybernetic bodies ideally encapsulate what postmodern critics and psychoanalysts have singled out as the notorious “other” of human identity.

Along the same lines, the French sociologist Jean Baudrillard writes of the difference between machines (as an example of “simulacra” of the first order) and automata (according to Baudrillard’s taxonomy, simulacra of the second order):

The machine overrides all, and with the machine *equivalence* comes too. The automaton plays the part of courtier and good company; it participates in the pre-Revolutionary French theatrical and social games. The robot, on the other hand, as his name indicates, is a worker: the theater is over and done with, the reign of the mechanical man commences. The automaton is the *analogy* of man and remains his interlocutor (they play chess together!).⁷¹

If we follow Baudrillard’s distinction, the cyborg figure might well be understood as the modern successor to the automaton’s symbolic function as analogy and “interlocutor” of biological man. At the core of its mediating agency in modern and postmodern fiction thus lies the idea of creating an ontologically hybrid mirror image, an image that reflects and, at the same time, alleviates the growing tensions between the human and the technological. Fascination and threat, attraction and denial, difference and sameness: oscillating between these conflicting coordinates the postmodern concepts of “alterity” and “otherness” seem to capture nicely the symbolic function of the cyborg as mediator between the human and the technological.

Studying the importance of cultural mimesis and reproduction, the anthropologist Michael Taussig makes a similar claim as to the paradoxical nature of the relationship between self and other. As Taussig explains in *Mimesis and Alterity*:

Pulling you this way and that, mimesis plays this trick of dancing between the very same and the very different. An impossible but necessary, indeed an everyday affair, mimesis registers both sameness and difference, of being like, and of being Other. Creating stability from this instability is no small task, yet all identity formation is engaged in this habitually bracing activity in which the issue is not so much staying the same, but maintaining sameness through alterity.⁷²

From yet another perspective, Jacques Lacan highlights “the startling spectacle” of the first encounter of the young child with his or her mirror image as an essential precondition for the construction of identity. In the Lacanian psychoanalytic framework, this moment of preconscious recognition of the *I* figures as a primordial form of that process of identi-

fiction with an other which eventually leads to the creation of the subject. Bound up with the formation of the subject in an asymptotic relationship, this earliest image of the self is located wholly in the realm of fiction, prefiguring, as it does, not just the mental permanence of the *I* but also, through the agency of its asymmetrical representation in the mirror, its alienation and distortion.⁷³

Lacan's concept of the formation of the subject hinges on the following premises. First, there is the factitiousness of the controversial discourse of the self with his or her mirror image—an image that signifies at once *similarity* and *difference* and that is apt to produce an idea of subjectivity by relating the *I* to a distorted representation of its own. And second, the doubling and ambiguous encounter (*tuché*) of the self with its own image seems to be connected to what Lacan—following Freud's mechanist approach in *The Interpretation of Dreams*—calls the “automaton,” that is, the coming back or return of the repressed (as in a dream).⁷⁴ In both instances, the formation of the self is mutually dependent on the imagery of an other, on a negative double that constantly informs our search for identity by fixing personal (or cultural, racial, sexual, etc.) differences in a containable, visible object.

It is quite striking that the similarity between Lacan's theory of the formation of identity and the fictional creature of the cyborg should as of yet have gone unnoticed. Because of their generic hybridity, cybernetic bodies function precisely along the same lines as the inverted mirror images by which the self, if we follow Lacan's analysis, continuously construes and reassures itself of its own subjectivity. As with the androgynous characters in Philip K. Dick's science fiction novel *Do Androids Dream of Electric Sheep* (1968), which was later made into the cult movie *Blade Runner* (1982), we can be wholly assured neither of the visual markers of the human nor of those that define the identity of the cyborg. On the contrary, the very essence of the imagery of the man-machine turns on the fact that it resembles as much as it is estranged from the organic body. In dealing with the cyborg, we are therefore constantly engaged in negotiating the antagonist aspects of similarity and difference, of recognition and denial, just like the Lacanian *I* as it looks at its reflection in the mirror. Driven by the narcissistic desire to affirm its existence, the self sets out to identify what it is not; that is, it sorts out what it finds to be incongruous with the *real* of its perception, and then,

in a second step, discards all of the inverted aspects of its image as foreign to its own identity, as something that belongs to a different reality.

While the mimetic process may involve embodiment, that is, the reconstruction or doubling of the body, it also involves a disembodiment moment, and it is this aspect, I believe, that made the cyborg figure so appealing to writers of the American Renaissance. As Taussig has suggested, the mimetic faculty gives rise to a power relation between object and double, a symbolic manifestation of power that is often released through the subsequent destruction of the image (as in ritual burnings of likenesses, totems, and so on).⁷⁵ The tendency to denigrate the corporeal grounding of human existence by turning it into a technological double that can easily be manipulated (or even destroyed) is visible in the symbolic concept of the cyborg in a variety of ways. According to Kathleen Woodward's work on the relation between man and machine, the Western approach to technology has always been marked by a paramount interest in what machines think or feel rather than in the physical likeness to their creators. “As the phrase ‘artificial intelligence’ implies,” Woodward writes in her brilliant essay “Prosthetic Emotions,” “the debate over the increasingly blurred distinctions between humans and machines has been framed primarily in terms of a complex rationality.”⁷⁶ To this she adds the capacity for feeling that she sees at work in many of the fictional evaluations of the machine and its technological extensions—the android, the robot, and, more recently, the microcomputer. What seems to be lacking in all of these techno-narratives, however, is the reality or presence of the body as a major ingredient of the technological other. If machines are invariably conceived as technological prostheses that are designed to amplify the physical faculties of the body, they are also built, according to this logic, to outdo, to surpass the human in the sphere of physicality altogether.

The concern, then, whether or not technology would, in the long run, nefariously dominate human life was therefore always based on the machine's “character,” in other words, on its very humaneness. If the “good” machine, as in Rush's republicans-as-machines, was used to invoke the repressive utopia of disembodied, perfectly controllable men, the “bad” guy, the machine out of control or run amok, was taken to affirm, if only through its negation, the autonomy and otherness of the human self. Cyborgs, real or imagined, thus encapsulate the emergence

of a basic cultural conflict within modern society, namely, the dichotomous tendencies of accelerated technological progress, on the one hand, and the establishment of the individual as a self-reliant, autonomous subject, on the other. Since the imagery of the man-machine seemed to work both ways, as glaring metaphor for the widespread fear of technological encroachment and, simultaneously, as epitome and affirmation of actual sociocultural change, it developed into a powerful collective mirror image of modern technological man. What is more, it served to negotiate the increasing number of antimodernist stances that sprang up during the early stages of industrialization, opening up spaces for the imaginative assessment of cultural anxieties. With the advance of technology in full swing, the multifaceted concept of the cyborg, which in various guises had populated the myths and fictions of Western culture for centuries, finally became an important tool for facilitating human accommodation to the rapid progress of technology, a crucial instrument, as Woodward puts it, of “technological socialization.”⁷⁷

For a critical evaluation of the paradoxes inherent in the Romantic notion of authorship, the symbolic responses to the initiation of modern technology in antebellum America appear to be of particular interest. Since Romanticist representations of technology and authorship were quite often strikingly reinforcing, the composite imagery of the cyborg figure—its anachronistic connotations notwithstanding—was used to reflect on both the general mechanization of society and its more specific consequences for the vision and work of the modern author. To examine more closely the development of the modern notion of authorship in America and the extent to which it was affected by the evolving technological environment, I bring together in the next chapter a series of examples pertaining to the diverse responses of early American authors to technology and their attempts at negotiating symbolically the threat of cultural “discontinuity” associated with the paramount presence of the machine.

chapter one

FROM FRANKLIN TO WHITMAN CONTESTED IDEOLOGIES OF AUTHORSHIP AND TECHNOLOGY

The inventions in mechanic arts, the discoveries in natural philosophy, navigation, and commerce, and the advancement of civilization and humanity, have occasioned changes in the condition of the world and the human character which would have astonished the most refined nations of antiquity.

John Adams to Thomas Jefferson, June 28, 1813

In American cultural history, the life and works of Benjamin Franklin stand out as a singular instance in which technological expertise and literary authorship meet with natural ease.¹ Among historians of technology, Franklin is not merely acknowledged as the inventor of numerous household contrivances such as an improved wood-burning device, the so-called Pennsylvania Fireplace or Franklin Stove, and an apparatus for taking down objects from high shelves also known as the “long-arm.” He is equally remembered as the engineering spirit behind a new clock design (the precursor of the famous “Ferguson clock”), an umbrella-shaped anchor, bifocal glasses, and, perhaps his most significant contribution to technological progress, the lightning rod.² As for his literary achievements, Franklin authored an autobiographical text

that was soon to become, in the words of Kenneth Dauber, “America’s Iliad.”³ Moreover, in writing and editing an enormously successful almanac, he launched the tradition of the how-to book, a genuine American genre that conjoins—in its original Franklinesque form—rationalist rhetoric, social progressivism, and the Protestant work ethic. Together with the *Autobiography*, his *Poor Richard’s Almanac* (1732–57), which commonly sold about ten thousand copies per issue and was translated into more than fifteen languages, had a tremendous (if not always healthy) impact on generations of Americans to come, writers of literature included.⁴

The conflation of life, technology, and authorship is also encapsulated in an epitaph Franklin wrote for himself almost fifty years before he began working on the *Autobiography*, where he took up the idea again in order to depict the scope and purpose of his autobiographical venture. In the “Epitaph,” Franklin envisions his life not just as a text to be read but as a text to be *printed*, thus willfully turning his body into dead, mechanically reproducible matter:

The Body of
B. Franklin,
Printer;
Like the Cover of an old Book,
Its Contents torn out,
And stript of its Lettering and Gilding,
Lies here, Food for Worms.
But the Work shall not be wholly lost:
For it will, as he believ’d, appear once more,
In a new & more perfect Edition,
Corrected and amended
By the Author.
He was born Jan. 6. 1706
Died 17—⁵

If one considers his professional background and learning—in 1728, the year the “Epitaph” was composed, Franklin was about to set up his own printing house—it is hardly surprising that he should conceive of his life as an outdated “edition,” a worn-out book eagerly awaiting its

second printing. What is more striking, however, is the *post-factum* mode of the epitaph, that is, the underlying notion of the self transcending its biological confines by way of a mock death: even though the body deteriorates (“Its Contents torn out, And stript of its Lettering and Gilding”), the epic unity of life and work—as it is inscribed on paper—will provide the possibility of survival by way of another, a more perfect printing.

It is worth noting that the blurring of life, technology, and authorship in Franklin’s “Epitaph” capitalizes on two important aspects of the eighteenth-century debate about writing and printing which I have tried to outline in my introduction: the effects and consequences of the technology of print and the development of the author as creator and proprietor of an original work of art. Franklin’s metaphor of himself as a fading edition, a dated printing “resurrected” by the Author’s corrections and amendments, distinctly reverberates with the myths and paradoxes of the modern concept of authorship. Casting himself as a godlike figure, the author in, as well as of, the “Epitaph” symbolically stands for the power of redemption. In an era of steadily improving means of mechanical reproduction—just note Franklin’s own contribution to the improvement of the printing process—the profession of the author was thus taken, if not as a path to wealth (given the lack of genuine copyright laws, a rather unlikely prospect), then at least as a source of empowerment and authority.⁶ By creating a textual framework for himself, the writer, if we follow Franklin’s logic, becomes the author of at once an original work of art and the evolving identity that is embedded in the process of writing and editing.

Bios, Technology, and the Life of Writing

The autarkical, self-defining stance of the author also informs Franklin’s famous autobiography. From the very beginning this astoundingly modern text highlights the opportunity, opened up by the mode of self-writing that Franklin engages in, to manipulate, rewrite, and thereby correct the course of one’s life. “I should have no Objection to a Repetition of the same Life from its Beginning,” he cunningly tells his readers, “only asking the Advantage Authors have in a second Edition to correct some Faults of the first.”⁷ As a closer look reveals, Franklin indeed deals

with the occurrences and events of his life as if they were bits and pieces of a dated manuscript from which errata are expunged in order to make it fit for another, more nearly perfect edition. Since his vita is designed to represent a cumulative educational project, the imagery of “editorial” work serves well to convey the idea of constant revision and ongoing improvement. Analogous to the editor, whose task is to correct errors and fill in omissions, the author of the autobiography continuously reworks his past experience into strategies for future economic and social success.⁸

It seems important to me, however, that neither the *Autobiography* nor the “Epitaph” draws our attention to the act of writing as such. Far away yet from Romantic idealizations of authorship, which stress rather the organic, corporeal aspects of writing, Franklin’s metonymic conflation of life and text hinges completely on mechanical means, or, to be more precise, on the technology of print. As Marlon Ross and other critics have shown, printing confers authority, and it is that authority—in the double sense of being authorized to manipulate the printed text and, thereby, public opinion—which is at stake equally in Franklin’s “Epitaph” and his exemplary eighteenth-century autobiography.

In both cases, Franklin seems to be fully aware of the impact of printing technology and its capacity to distribute and make public the written text on a very large scale. In the *Autobiography* we are repeatedly confronted with the paradoxical *raison d’être* of self-writing in the age of print, of making accessible to a large audience the private details of an individual life. Although Franklin formally addresses his forty-year-old son as the principal reader of his text, he is equally conscious of the numbers of potential readers who, perusing his narrative, might find fault with his vanity and his self-indulgent style.⁹ Time and again he refers us to the act of reviewing, editing, and correcting manuscripts, a task that has gained enormous significance through the prospect of “going into print.” What is really important about his text, then, as Franklin openly avers, is not that it is written but rather that, by dint of the exemplary life of its author, it has been turned into printed matter. Franklin’s preoccupation with metaphors of printing and revision is even more apparent in the “Epitaph.” At a cursory glance, the conflation of life, technology, and authorship manifested in the poem could well be taken as a reflection solely of the wide-ranging talents and learning of this Ameri-

can representative of the Enlightenment. In view of the cultural authority that the eighteenth century vested in the products of the printing press, however, it might also be read as a paean to the technology of print and its capacity to solidify the written word into an endless succession of revised editions and printings.

Prior to the Romantic period in America, as we can see in the case of Franklin, technology and authorship more often than not coexisted peacefully. The “fine” and the “useful” arts (a tellingly ideological term for the gamut of manufacturing and mechanical trades) were both informed by the same kind of creativity and inventiveness, concepts that were then mainly taken to signify the congenial imitation of nature.¹⁰ For Franklin, it was still a matter of course that scholars should be as proficient in composing a poem or a speech as in constructing a piece of machinery. Let them be instructed in mechanics, he writes in his “Proposals Relating to the Education of Youth in Pennsylvania,” and thereby be “informed of the principles of that art by which weak men perform such wonders, labor is saved, manufactures expedited, etc. etc.”¹¹ And in 1751, the influential author-inventor-scientist advised the students and faculty of the Philadelphia Academy that “the hours of each day are to be divided and disposed in such a manner as that some classes may be with the writing master, improving their hands; others with the mathematical master, learning arithmetic, accounts, geography, use of the globes, drawing, mechanics etc.”¹²

With mechanization increasingly leaving its imprint on everyday life, however, this mingling of the artist of the *real* and the artist of the *ideal* became a topic of heated controversy. As critics have repeatedly noted, Romantic writers were deeply irritated by the looming presence of the machine. As early as 1829, Thomas Carlyle, whose influence on American Romanticism is well documented, complained that his was no longer a religious or philosophic age but the age of outward forces, of automatic production and machinery. “Were we required to characterize this age of ours by any single epithet,” he writes in his famous essay “Signs of the Times,” “we should be tempted to call it, not an Heroical, Devotional, Philosophical, or Moral Age, but above all others, the Mechanical Age. It is the Age of Machinery, in every outward and inward sense of that word.”¹³ Although Carlyle’s aim is not to deny the compelling forces of technological progress, his criticism is centered on the refu-

tation of technology as the major paradigm of contemporary society. Unlike Benjamin Franklin, who saw the benefit of integrating the fine and the useful arts so that they might fertilize each other, the Romantic scholar bewails the abandonment of the “inward department of knowledge,” the demise of intellectual and philosophic inquiry. He is afraid that from now on “what cannot be investigated and understood mechanically, cannot be investigated and understood at all.”¹⁴

For Carlyle, the composite image of the machine comprises a variety of different negative referents, ranging from actual machines and the distasteful social aspects of early industrial production to the “hardening” of man’s sensibilities and the excessive emphasis on outward forces as determinators of the human condition. Having thus articulated the conservative cultural biases of his times, Carlyle—in an interesting twist of argumentation—goes on to demote the modern “Deity of Mechanism.” “Man is not,” he declares emphatically, “the creature and product of Mechanism; but in a far truer sense, its creator and producer.”¹⁵ By negating the myth of the machine as the new creator and its corollary, the preponderance of technological paradigms in regard to the interpretation of culture and the definition of human beings at large, Carlyle addresses not just the practical negative consequences of technology but the establishment of mechanical philosophy as the dominant worldview of his era.

What might be gleaned from Carlyle’s critique of the mechanization of contemporary culture, then, is the fact that even at this early stage, technology has no clear designation; it is not a discrete entity, referring to distinct and therefore clearly distinguishable sociocultural phenomena; rather it is a site of converging discourses, a semantic construct that seems to be at once inside and outside human culture (as representation of its non-biological other). Its utilitarian etymology notwithstanding, the concept of technology, from the very moment of its initiation into modern society, signified not so much a method or a tool or a new manner of doing things as a certain mindset, a symbolic way by which men approach the complexity of nature and by which they believe they are able to master the vagaries of human existence. It is true that in the conception of Harvard professor Jacob Bigelow, whose influential *Elements of Technology* (1829) seems to have introduced the term to the

American public, “technology” means just the former: the practical application of science. Yet, if Bigelow’s approach was primarily utilitarian, his encyclopedic text also communicates a sense of urgency and technological encroachment, a feeling that technology, apart from being simply the application of science to the useful arts, is something that can no longer be avoided, a new force that has already administered its own laws and is following its own logic. “The augmented means of public comfort and of individual luxury, the expense abridged and the labor superseded, have been such,” Bigelow writes with an eye to the growing social pessimism about the advancement of science and technology, “that we could not return to the state of knowledge which existed even fifty or sixty years ago, without suffering both intellectual and physical degradation.”¹⁶

Even Carlyle, whose now classic essay was published in the same year as Bigelow’s *Elements*, ultimately joins in with the progressivist belief in the unfaltering advance of science. Having brandished the age’s “mechanical” orientation for the greater part of his influential text, Carlyle concludes by outlining his hopes for the future and by explicitly approving of the current state of learning and the arts:

Doubtless this age also is advancing. . . . Knowledge, education are opening the eyes of the humblest; are increasing the number of thinking minds without limit. This is as it should be; for not in turning back, not in resisting, but only in resolutely struggling forward, does our life consist. . . . Indications we do see in other countries and in our own, signs infinitely cheering to us, that Mechanism is not always to be our hard taskmaster, but one day to be our pliant, all-ministering servant.¹⁷

What Carlyle, Bigelow, and many other early nineteenth-century commentators on the fast-changing scene of modern life thus have in common is the feeling that, with the rapid advancement of the sciences and the increasing output of mechanical inventions, an irrevocable shift, a transition from an “organic,” pretechnological state to a culture continuously producing and being shaped by technology has occurred.

Early Cyborgs and the Rhetoric of American Romanticism

It has long been argued that the concept of technology should be based on a complex system of interacting social and cultural factors.¹⁸ Rather than merely being seen as marking a set of different techniques, technology ought be examined instead as a powerful way of *world-making*, a means of symbolically coming to terms with the modern environment.¹⁹ This idea of technology as symbolic appropriation of the real is taken up again by David Channell in *The Vital Machine: A Study of Technology and Organic Life* (1991). Its broad, multifaceted theoretical assumptions notwithstanding, Channell sees the contemporary debate over the breakdown of the boundaries between the technical or artificial and what is still misleadingly called the natural as directly related to the much older dichotomy of mechanical versus organic worldviews. Taking the philosophy of symbolism developed by Ernst Cassirer and his disciple Susanne Langer as a point of theoretical departure, Channell focuses on how the mechanical worldview, promoted by such proto-modernist figures as Descartes, Hobbes, Boyle, and Newton, came to provide “a model for understanding organic life that differed from the model provided by the [older] organic world view.” By turning a specific technology, the clockwork, into a symbol for all sorts of “natural” phenomena, mechanical philosophy, according to Channell, laid the groundwork for the ongoing technologizing of the modern world.²⁰

As with many shifts of paradigms involving forms of sociocultural behavior, however, one must be aware that there is often no clear-cut distinction between the two worldviews, and that the established “organic” model was never replaced completely by what might be termed the symbolism of the machine. This can be seen, I would argue, not only in the continuing presence of organicist tenets in modern philosophical and literary discourses, of which Romanticism makes just one case in point, but also in the emergence of hybrid symbolic figures such as the man-machine or, in its more recent variant, the cybernetic organism.

As Channell rightly states, mechanical worldviews do not propagate a “conflict between actual machines and organic processes.”²¹ On the contrary, mechanical philosophers tend to project their understanding of machinery onto the organic world, thus creating “mechanical organisms.” By making universal the laws of mechanics, the Cartesian-

Newtonian philosophical legacy led to an onslaught of mechanical paradigms which can best be described as probing the vague and shifting line between the living and the non-living, between the body and the machine. By the mid-eighteenth century, it had become a popular and widespread practice of anthropological discourse to interpret the human body in machinist terms. As epitomized in Julien Offray de La Mettrie’s influential treatise *L’homme machine* (1747), man was considered a mechanical entity that should be examined only in regard to its measurable quantities and motions. With his method of investigating the human body firmly grounded in the natural sciences, the notorious French physician and philosopher came to conclude that, like the cosmos at large, “l’homme est une machine.”²² La Mettrie’s conception of man as a biological machine was basically nothing but an elaboration of Descartes’s by then well-established animal-automaton theory. Because of its claim that the Cartesian model must be extended to humans as well—a daring move that not only did away with the separation of body and soul but also necessitated abolishing God as the organizing principle of bodily functions altogether—it met with angry protests from Lutherans and Catholics alike and finally forced its author to seek refuge at the court of Frederick the Great of Prussia.

There is little doubt that the eighteenth century’s restructuring of the “natural” body, which culminated in La Mettrie’s concept of the man-machine, ultimately issued in the rising cultural importance and discursive ubiquity of mechanical creatures or cyborgs. Yet in addition to its function as a marker of the ongoing encroachment on the organic by the technological, cybernetic imagery provided spaces for the staging of both the pervasiveness of modern technological paradigms and the nudging anxieties concurrent with the increasing dominance of the machine. Ready to represent such complexity, the cybernetic body finally developed into a powerful metaphor of technological culture—a metaphor, one should add, that literary writers must have found especially appealing when it came to defining the paradoxical status of authorship within the ideological framework of modern society.

Among the first American writers to use the cyborg as a symbol of various cultural and social deficiencies was the prominent critic and politician James Kirke Paulding. His collections of short fiction, sketches, and sardonic, Swifitean criticism of contemporary life readily attest to

the preoccupation of early nineteenth-century discourse with mechanization and its dehumanizing, emasculating effects on society. While attacking all sorts of modern phenomena (from Pestalozzi's "new school" of learning to urbanization and the mechanics of socially encoded behavior), Paulding repeatedly deploys machinist imagery to ridicule the human race's "gradual advance to a state of comparative perfectibility" through "the daily discoveries in science [and] the vast improvement in the mechanical arts."²³ Accordingly, modern man—especially when clad in the latest fashion—is described as being nothing but a walking "robot," and he appears to represent more an "improvement in the race of automatons" than a human being.²⁴

As with many of his literary colleagues, for Paulding, automata encapsulated the machinery of industrialized, capitalist society at large. Put in such perspective, the (technical) limitations imposed on the android's body all but equaled the psychophysical restrictions called for by the brutal regime of industrial production and, of no lesser importance, the repressive demands of bourgeois etiquette.²⁵ To this early American writer, the staccato motions of the robot and the meticulously choreographed interplay of its body parts appeared at once as the model and mirror image of modern man. What is more, the android's staggering gait glaringly signified the threatening liminality of the human who has become a machine, a lifeless monster determined not so much by his or her free will as by the demands of its artificial organism.

That the cybernetic image was put to widespread use in American sociocultural criticism during the first half of the nineteenth century can also be seen in Melville's *Typee* (1844). Echoing equally Rousseau's natural philosophy and Paulding's sardonic writings in *Salmagundi*, Melville, in one of the key passages of the novel, favorably compares the gay and innocent lives of the Marquesan cannibals who had rescued him to the stiffness and artificiality of American culture. Their women in particular, he quips with an eye on his primarily female, middle-class readership, are "not filled with envyings of each other's charms, nor displaying the ridiculous affectations of gentility, nor yet moving in whalebone corsets, like so many automatons, but free, inartificially happy, and unconstrained."²⁶

The rhetoric of mechanical metamorphosis, of humans being turned into machines, which is prevalent in many of Paulding's works, finally

culminated in an extended short story significantly titled "The Man Machine." Although Paulding was generally known to empathize with the working class, this highly allegorical text took aim at utopian reformers of the workman's plight. Designed as a commentary on Robert Owen's *New View of Society* (1813), and a critique especially of Owen's own utopian experiment at New Harmony, "The Man Machine" satirizes with sardonic bile the totalitarian aspects of a closed, overregulated utopia, an alternative society, according to Paulding's argument, patterned after the factory system and its technological foundation: the machine. Before he addresses the reformer's community directly, the narrator gives us an account of his experiences as a child laborer in a cotton factory, a veritable limbo to Owen's utopian New Harmony. This was the realm of "Productive Labour," the new goddess of the machine age, a voracious, stupefying power that slowly turned its victims into machinelike automata: "We became stupified in mind, and the functions of our bodies gradually obeyed the impulses of the engine, which gave life and motion to the machinery. By the time I had been there three years, I became sensible that my soul had transmigrated into a spinning jenny, and that I had actually become a piece of machinery."²⁷

Paulding's anxiety over a world dominated by machinery and its inflexible, rigorous regime is distinctly informed by the increasing mechanization of everyday life and its impact on the values and morals of the early republic. Since he singled out the machine as the motor behind different forms of social and cultural change—including paper money, banks, foreign fashions, and even utopian communities—Paulding comes close, as Gerald Gerber has noted, to prefiguring Carlyle's classic critique of technology as the dominant "sign" of the new century.²⁸ What is more, by capitalizing on the well-established imagery of La Mettrie's mechanical man, an imagery that by then had been rid of its iconoclastic religious implications and was now taken to signify the grim and sterilizing consequences of modern industrial production, the author of "The Man Machine" paved the way for the rhetorical strategies of American Romanticism and its obsessive blurring of the organic with the mechanical.

If we follow the numerous critics of nineteenth-century cultural discourse, the impact of modern technology on the consciousness and imagination of antebellum Americans must have been tremendous. "As

the machine turned country into city, serf-like peasants into slave-like workers, distance into time, hours into minutes, land into capital, and the ideal of a primitive Arcadia into the idea of a highly industrialized utopia," writes H. Bruce Franklin, "it loomed huge in the everyday consciousness of almost everybody."²⁹ In order to grasp the enormous cultural change that Americans experienced during the nineteenth century, one has to recall that the population of the United States had exploded from roughly 5 million in 1800 to more than 77 million in 1900. At the turn of the nineteenth century only 322,000 or a mere 6 percent of all Americans lived in cities. A hundred years later the ratio had changed to 40 percent, or a total of over 30 million people.³⁰ Simultaneously, the rapid invention of new technological devices dramatically altered the lifestyle of almost every American. Among the many that influenced the attitudes and perceptions of mid-nineteenth-century Americans were, just to name the most consequential ones, the power loom, the sewing machine, the steam-driven flatbed press, the locomotive, the steamboat, and the development of anesthesia. Moreover, the era was marked by new technologies of communication (telegraphy and the telephone) and, equally important, representation (photography, the spectroscope, and the phonograph).

The extent to which technological ingenuity must have been inscribed on American minds of that period can be gleaned from a late entry in Emerson's journal. "The splendors of this age outshine all other recorded ages," Emerson wrote in 1871, adding a list of recent innovations that he believed to be important driving forces of modern history: "In my lifetime, have been wrought five miracles, namely, 1. the Steamboat; 2. the railroad; 3. the Electric telegraph; 4. the application of the Spectroscope to astronomy; 5. the photograph; five miracles which have altered the relations of nations to each other."³¹ Even if one is not prepared to conceive of these inventions as the primary agents changing the conditions of modern life, a view increasingly questioned by historians of technology, it is quite clear that for most contemporary observers, technological progress signified not just a revolution in the improvement of tools, as Thoreau sarcastically put it, but the ambivalent prospects of modernity itself.³²

In his pioneering study *The Machine in the Garden*, Leo Marx has

perceptively revealed the ambiguous stances on technology advanced by American Romanticism. Of the various examples that Marx analyzes in detail, Thoreau's autobiographical account of his philosophic experiment at Walden Pond stands out as the most striking proof of the idiosyncratic way in which Americans negotiated the divergent forces of culture and nature, of modernization and the allegedly pristine landscapes of the New World. Having denounced the increasing intrusion of wild nature by the rapidly growing railroad system for much of his remarkable autobiography, Thoreau suddenly switches from the harsh denial of technological progress to a softer, more placating register. Seen from the undistorted perspective of the pastoral setting at Walden Pond, the railroad appears to take on a different and more complex meaning. As if he had never singled out the "fiery dragon," this "devilish iron horse . . . with a thousand men in his belly"³³ as arch-signifier and representative of mechanization gone awry, Thoreau now rereads the same smoke-spurting monster as a token of hope and, if only by indirection, an affirmation of America's technological future. "The cars never pause to look at it," he writes, meaning the beautiful landscape of Walden Pond;

yet I fancy that the engineers, and firemen and brakemen, and those passengers who have a season ticket and see it often, are better men for the sight. The engineer does not forget at night, or his nature does not, that he has beheld this vision of serenity and purity once at least during the day. Though seen but once, it helps to wash out State Street and the engine's soot. One proposes that it be called "God's Drop."³⁴

Although Leo Marx strangely neglected this passage, it forcefully corroborates his interpretation of Thoreau's text as well as his main thesis with regard to American Romanticism in general. When confronted with the emerging cultural authority of science and technology, Romantic writers, according to Marx, took refuge in the long-standing belief in the redeeming abundance of nature as perhaps "the most important single distinguishing characteristic of American life."³⁵ Certainly, Thoreau draws our attention to the fact that there is no world beyond the machine: even over the bucolic idyll of Walden Pond the railroad literally

casts its soot-laden shadow (which Marx takes also as a shadow upon the Emersonian reliance on nature as a sign of truth). Yet by attributing to the sublime landscape the power to redeem, to “wash out” the negative consequences associated with the onslaught of technology, Thoreau also fashions a glimmer of hope from the rather bleak spectacle, and he foresees a future in which the technological and the natural and organic would no longer be at odds.

That the ongoing mechanization of American life, as the now classic studies of Leo Marx and, more recently, Cecelia Tichi have shown, could have been fitted so well into its leading ideologies, Puritanism and the pastoral, is indeed striking.³⁶ Yet Americans not only managed to harness their utopian conception of America to that of the “middle landscape” (Marx’s term for the absorption of the machine into the pastoral idea of the garden) or to an “engineered New Earth” (Tichi), but also increasingly came to view technology as the only creative force there is. Convinced of the aesthetic and moral superiority of the machine and its inventor, parochial advocates of technology professed, according to historian John Kasson, “that the distinction between technological pursuits and supposedly more lofty and refined artistic enterprises was at heart artificial, [and] that mechanical achievements evinced creative intelligence as great in its way as did poetry or painting.”³⁷ Moreover, by directly affecting the conditions of the social body in toto, the artist of the real, that is, the mechanic and engineer, was called upon to replace the artist of the ideal. “A steamer,” declared Thomas Ewbank, from 1849 to 1852 United States commissioner of patents, “is a mightier epic than the Iliad, and Whitney, Jacquard, and Blanchard, might laugh even Virgil, and Milton, and Tasso, to scorn.”³⁸

To this challenge antebellum writers responded by questioning the invasion of the machine and its presumed creative power. Even Emerson, who had originally embraced the technical achievements of science and the useful arts as a means to “a farther good,” eventually adopted a more ambivalent tone when it came to modern technology. In his essay “Nature,” Emerson observes how all parts of nature (including man-made machinery) “incessantly work into each other’s hands for the profit of man.”³⁹ By taking care of the drudgery of quotidian life, science and technology, as Emerson points out, will ultimately allow modern man to set himself to a more spiritual task, to follow his true calling:

The private poor man has cities, ships, canals, bridges, built for him. He goes to the post-office, and the human race run on his errands; to the book-shop, and the human race read and write of all that happens for him; to the court-house, and nations repair his wrongs. He sets his house upon the road, and the human race go forth every morning, and shovel out the snow and cut a path for him. . . . The catalogue is endless, and the examples so obvious, that I shall leave them to the reader’s reflection, with the general remark, that this mercenary benefit is one which has respect to a farther good. A man is fed, not that he may be fed, but that he may work.⁴⁰

Had Emerson thus believed, as he confided to his journal in 1843, that “Machinery & Transcendentalism agree well,”⁴¹ after his second visit to England he cautioned his fellow citizens that exaggerated enthusiasm for the machine and its presumed powers might ultimately turn against its human creators: “A man must keep an eye on his servants, if he would not have them rule him. Man is a shrewd inventor, and is ever taking the hint of a new machine from his own structure, adapting some secret of his own anatomy in iron, wood, and leather to some required function in the work of the world. But it is found that *the machine un-mans the user*. What he gains in making cloth, he loses in general power.”⁴²

At first glance, Emerson’s critique seems to reiterate what Carlyle had already attacked some thirty years earlier as the age’s naive and therefore fatal confidence in technology. If we inspect Emerson’s comments more thoroughly, however, we find that he actually addresses the question of the modern dependence on machinery from a very different angle. Whereas Carlyle stops short of giving his readers any clue to *why* mechanization has taken command of the cultural and intellectual life of his times, Emerson goes further into some of the basic premises of technological man. By projecting the pattern of human anatomy onto the world of steel and steam, the modern inventor, according to Emerson’s analysis, forsakes not only control over his own body but also control over the machine that he created.

To the same degree that technology usurps the principles and functions of the living body, man himself will turn into a mechanical entity, will become un-man, or rather *unmanned*, by the machine. Significantly

and somewhat paradoxically, it is thus by envisioning the engineer as emulating nature (and thereby becoming himself estranged from the natural) that Emerson articulates his critique of the contemporary obsession with the material world. His argument becomes even more puzzling if we take into account that in his essay "The Poet," Emerson explicitly designates the natural as the very force that triggers and informs all true artistic endeavors. The poet, says Emerson, "stands one step nearer to things, and sees the flowing or metamorphosis . . . and following with his eyes the life, uses the forms which express that life, and so his speech flows with the flowing of nature."⁴³ What, then, one has to ask, is wrong with the engineer, who, having taken his hints from nature, does not stop at these natural facts but strives to transcend them into a higher form made of lasting and more powerful materials? It seems to me that in order to answer this question we should not need recourse to the often cited antagonism between the Romantic writer and the increasingly dominating scientist and technician, but should investigate instead their essential proximity, especially when it comes to their common attempt to express, control, and expand the realm of the natural.

For all their alleged disparities, there is indeed a striking similarity between the way in which the modern view of the author as at once the inventor and proprietor of his text(s) and that of the engineer as the godlike creator of useful things has been constructed. Both groups—the masters of the word and the masters of machines and scientific techniques—were not only partaking in the increasing differentiation and specialization of their respective trades (a process that finally culminated in two distinct cultures of "experts"),⁴⁴ but also struggling to have the political powers establish copyright and patent laws that would procure a dependable economic basis for both professions. In each case, the foundation for the institution of protective laws and regulations was basically the same: the belief that writers and inventors alike who produce an original idea should be considered the sole proprietors and thus be guaranteed the right to market and exploit the application of that idea.⁴⁵

Given the considerable overlap in regard to their professional identity, it is no wonder that, in order to determine the methods of scientific discovery, nineteenth-century scientists and inventors openly referred to the faculty of imagination, a faculty traditionally associated more with

the act of composing a poem than with the work of scientists and technicians. In his widely read challenge to the Baconian method of induction (which emphasized the mechanical operations of experimentation and observation as the basic means of scientific research), the German chemist Justus von Liebig captured poignantly the mood among many of his scientific colleagues. Echoing the growing dissatisfaction with positivist materialism, Liebig came to conclude that "the mental Faculty which constitutes the poet and the artist is the same as that whence discoveries and progress in science spring."⁴⁶

On the other side of the Atlantic, the effort to span the gap between the fine and the useful arts equally dominated public discourse for much of the latter half of the nineteenth century. The fact that American artists such as the painter Charles Willson Peale and the sculptor Hiram Powers held a strong interest in machinery (and, vice versa, engineers such as Robert Fulton and Samuel F. B. Morse began their careers as painters) helped to substantiate, as John Kasson notes, "the comparisons that observers of technology frequently drew between machines and the fine arts and their contention that the two sprang from related imaginations."⁴⁷

Emerson also appears to acknowledge the idea of the inherent sameness of the technological and artistic imagination when he writes that "we love the poet, the inventor, who in any form, whether in an ode or in an action or in looks and behavior, has yielded us a new thought. He unlocks our chains and admits us to a new scene."⁴⁸ Whenever the artist of the Real, the inventor and mechanic, is capable of mustering the strength and ingenuity that yield an original creation, he may well be counted among the Romantic geniuses of the word. As Emerson makes clear, however, it is precisely the lack of inventiveness, the waning of originality, that has become the primary marker of modernity. It then follows for this New England philosopher that "the fountains of invention and beauty in modern society are all but dried up."⁴⁹ By the same token, he expatiates at length on the uninspired, because entirely economic, nature of modern life. "Is not the selfish and even cruel aspect," Emerson asks toward the end of his essay "Art," "which belongs to our great mechanical works, to mills, railways, and machinery, the effect of the mercenary impulses which these works obey?"⁵⁰ It is therefore not the mechanical artifacts themselves that ought to be shunned but rather

the economic premises out of which these advancements of modern technology evolved, or, in other words, the commercialization of culture. Only when we proceed from the belief in the holy unity of nature (which transcendentalists believed to comprise the material world as well) will we “raise to a divine use the railroad, the insurance office, the joint-stock company; our law, our primary assemblies, our commerce, the galvanic battery, the electric jar, the prism, and the chemist’s retort; in which we seek now only an economical use.”⁵¹

This passage makes apparent that Emerson’s view of technology exceeds its restrictive definition as pertaining only to machinery, applied science, or a mere system of tools. Anticipating a more encompassing approach toward technical improvements, he perceives technology as partaking in a larger process of social and cultural change. Emerson defies the wide-ranging reification that has come to characterize modern society, and he emphasizes over and over the loss of vitality and genius that accompanies it. In so doing, he conjures up highly gendered images of the ongoing mechanization of modern life, and he pictures the tangled web of technology, culture, and society in terms of a transgression between man and machine—a transgression, I argue, that also epitomizes the liminality and cultural anxieties of modern authorship and, at the same time, functions as a mirror image for its growing entanglement with technology and the commercialization of American society.

As I pointed out earlier, Emerson calls attention to the fact that modern man, by copying the laws of nature and transferring them to the material world of steel and stone, turns himself into a machine, into a man castrated (unmanned) and thereby cut loose from his procreative energies. The priapic wording of Emerson’s discourse is equally strong when he addresses the kind of beauty for which so many of his contemporaries indulged a superficial admiration as “an effeminate, prudent, sickly beauty, which is not beauty.”⁵² Emerson uses metaphors of sex and gender to distinguish the true from the false poet, to separate the authentic from the inauthentic, the inspired from the uninspired artist.⁵³ If he disparages the productive powers associated with modern machinery as stale, castrating, and essentially feminine, the reasons are readily evident: Emerson, like many other nineteenth-century American authors, wanted to boost his own sense of professional identity.

Within the framework of what he identifies in *English Traits* as the

machinery of laissez-faire capitalism, a machinery based on deception, dissimulation, and sham,⁵⁴ the poet represents the forces of divine, original creation: “The poet is the sayer, the namer, and represents beauty. He is a sovereign and stands on the centre. . . . Beauty is the creator of the universe.”⁵⁵ By yoking together the work of the poet and the work of nature, Emerson dissociates his profession from the fraudulent aspects of modern technological society. Unlike the products of the mechanic and engineer, whose professional values are based on the idea of imitating and thereby seeking mastery over nature, the work of art epitomizes the natural world.⁵⁶ It is, in fact, an expression of nature “in miniature.” And, like all natural things, it eternally reproduces itself. “The beauty of nature,” says Emerson, “reforms itself in the mind, and not for barren contemplation, but for new creation.”⁵⁷ What is more, since in art nature works through the will and imagination of the poet to herald and fulfill her works, the artist acts as mediator between the diverging forces of modernity. For it is the task of the poet to reunite “things to nature and the Whole—re-attaching even artificial things and violation of nature [such as the factory village and the railway], to nature, by a deeper insight.”⁵⁸ It is therefore not the view of the grandiose landscape as such that alleviates the negative consequences of modern technology (as Marx—following Thoreau—suggests in his idea of the “middle landscape”), but the touch of the poet, the unifying powers of true art. Only in the form of artistic representation—a representation that at the same time encapsulates and transcends its material referent—does nature negotiate the processes of modernization in a conciliatory manner.

“What, in its very essence, is so short-lived as a modern book?”

This shift from the site of the natural to the person, from the landscape to the writer who captures its essence and thereby suspends the dwindling authority conferred on his work by the evolving technological society, possesses seminal significance for the development of the modern concept of authorship. Though mostly neglected by critics of Romanticism and nineteenth-century cultural history alike, the urgent need to establish the profession of the writer within the growing differentiation of American society had a tremendous impact on the way authors addressed the topic of technology. When analyzed with an eye to the sim-

ilarities rather than the oft-cited disparities between these forms of professional specialization, the many representations of science and technology in early nineteenth-century American literature reveal to an astonishing degree the influence that technological paradigms and scientific methods wielded over the composition of literary texts. Although the vast majority of texts dealing with technology cannot be viewed as blunt refutations of the forces of modernity, neither were they simply naive adoptions of the utilitarian, mechanist worldview rampant in early capitalist America. Instead, writers chose to communicate their ambivalence toward the dominant culture of technology, as well as their professional dependence on that culture, by constantly imagining sites of transgression between the realm of the ideal and the realm of the real, between the writer and the technician.

Over the span of nearly a century, the images themselves were, of course, widely varied, as were the associations attached to them by contemporary readers. More often than not, however, literary interrogations of the divergent professional spheres of technology and authorship follow a similar symbolic pattern: in order to visualize the precarious status of the modern author, they reenact symbolic encounters between the organic and the inorganic, between the body and the machine. In so doing, nineteenth-century representations of technology continue the rhetorical tradition of mechanical philosophy and its concomitant analogy of man and machine while, at the same time, repudiating its basic ideological premises. Against the backdrop of rising capitalism, these writers were projecting their professional and cultural anxieties onto the imaginary screen of a hybrid body, a fictional construct that cuts across the realms of the human and the technological, thus representing the author's difficult struggle for identity within a highly effective culture of technical invention and production.

As the nineteenth century progressed, American writers were more constrained than ever to negotiate their growing entanglement and discontent with the new forces of technology. Within the period from the 1830s to the 1860s, a time span that marked the publication of practically all major works of the so-called American Renaissance, the reading public in the United States had grown significantly. Owing to technological innovations in both the profession of printing and American society

at large, the production and dissemination of books had virtually exploded. The introduction of the steam-driven flatbed press by Isaac Adams (1836) and the new techniques of stereotyping and, somewhat later, electrotyping (1841) almost instantly transformed the process of printing into a fully industrialized operation. The railroad also contributed to boosting the American book trade. First, it speeded up considerably the marketing and distribution of the finished product, the printed book, and second, it opened new spaces for the consumption of reading matter, a fact that prompted the publisher George Putnam to introduce in the 1850s his best-selling series of "Railroad Classics," which were advertised as being "small enough to be put into a pocket" but with "print . . . large enough to be read without damaging the eyes."⁵⁹ Together with a variety of innovations in other areas—of obvious importance, for example, was the large-scale manufacture of cheap steel spectacles which improved the eyesight of those who couldn't afford the more costly eyeglasses made of precious metals—the technological innovations of printing, as Ronald Zboray claims, provided access to the book market for many in the lower middle class—people who, until then, had been shut out of the world of print.

Despite its alluring financial prospects, however, many antebellum writers were anything but satisfied with the expansion and commodification of American reading culture. As can be gleaned from Melville's correspondence with his publishers, and especially with his friend and fellow writer Nathaniel Hawthorne, the increasing economic value of the book added considerably to the pressures on ambitious authors who—like Melville himself—struggled to make a living by the pen while adhering to the lofty ideals of originality and creative authorship. As he famously put it in a letter to Hawthorne:

In a week or so, I go to New York, to bury myself in a third-story room, and work and slave on my "Whale" while it is driving through the press. *That* is the only way I can finish it now,—I am so pulled hither and thither by circumstances. The calm, the coolness, the silent grass-growing mood in which a man *ought* always to compose,—that, I fear, can seldom be mine. Dollars damn me; and the malicious Devil is forever grinning in upon me, holding the door ajar. . . . What

I feel most moved to write, that is banned,—it will not pay. Yet, altogether, write the *other* way I cannot. So the product is a final hash, and all my books are botches.⁶⁰

These lines, as critics have repeatedly pointed out, clearly articulate the bleakness of Melville's own financial straits, or, in the words of F. O. Matthiessen, the "distorting anguish involved in coining a serious book for bread."⁶¹ Yet they also point toward the technical transformation of the book market, which was now able to cater to an ever-growing number of indiscriminating readers, thereby streamlining the content of the books for sale as well as the processes of writing and composing literary texts. The technologically determined spawning of readership not only gave rise to the more marketable forms of the short story and the serialized novel respectively, but also left its mark on the changing needs of antebellum publishers, who were now eagerly looking for *sizable* and therefore *saleable* books. What is more, with the capacity to calibrate the number of new editions to the actual demands of readers (a possibility opened up by the technique of stereotyping, which allowed for the casting of a second set of type from which subsequent editions could be printed easily), the costs and time of production decreased considerably. In addition to improvements in bookbinding and the manufacture of raw paper, the advanced means of printing technology thus triggered an avalanche of both new and, to a slightly lesser degree, reprinted books, which climaxed in a total of 733 works published in 1853 alone (an increase of about 800 percent over the preceding two decades).⁶²

If the proliferation of books in antebellum America initiated a previously unknown culture of reading, it did so at the expense of ambitious literary authors trying to elude the fate of becoming what Frank Norris would viciously term "novelists to order—while you wait."⁶³ Moreover, for many American Romantics the flourishing commerce of reading and writing was no longer apt to guarantee the unique spiritual character of the written word. The profanation and sacrilege they saw at work in the process of modern publishing is captured best in a poem by Emily Dickinson:

Publication—is the Auction
Of the Mind of Man—

Poverty—be justifying
For so foul a thing

Possibly—but We—would rather
From Our Garret go
White—Unto the White Creator—
Than invest—Our Snow—

Thought belong to Him who gave it—
Then—to Him Who bear
Its Corporeal illustration—Sell
The Royal Air—

In the Parcel—Be the Merchant
Of the Heavenly Grace—
But reduce no Human Spirit
To Disgrace of Price—⁶⁴

If Emerson still acknowledged the poet's intrinsic "necessity to be published,"⁶⁵ it seems that Dickinson abandoned the prospect of publication altogether. Even though her secluded life in her parents' Amherst house makes her something of an exception among American writers of the mid-nineteenth century, Dickinson's poem conveys well the abhorrence with which many Romantic authors confronted the increasing commodification and marketing of literary texts.⁶⁶ "Sell The Royal Air," "Merchant Of the Heavenly Grace," "Disgrace of Price": with these and other biblically infused terms, Dickinson decries the commodification of the printed text and expounds the "holiness," the exceptional standing of the writer, who—as mediator between God and man—is called upon to bear the "Corporeal illustration" of heavenly ideas.

Of all antebellum authors, however, it is Melville who betrayed the keenest awareness of the fast-changing commercial nature of the American book market. Thus, in his "Dollars damn me" letter to Hawthorne, he expresses his ambiguity about writing his momentous and most ambitious work, *Moby-Dick* (1851), by claiming that there is probably "no use in elaborating what, in its very essence, is so short-lived as a modern book."⁶⁷ Time and again Melville denounces in his correspondence with

his editors and publishers the dwindling influence that serious writers are able to bring to bear upon issues of copyright and publishing policies, and he deplores the growing output of serialized, fast-written books that are geared solely to the lucrative excerpt process in literary magazines. "This country and nearly all its affairs," he once complained to his English publisher Richard Bentley, "are governed by sturdy backwoodsmen—noble fellows enough, but not at all literary, & who care not a fig for any authors except those who write those most saleable of all books nowadays—ie—the newspaper, & magazines."⁶⁸

In his apprehension about the modern book market and the constraints it put on the work and identity of the literary author, Melville was by no means breaking new ground. As Kathryn McKee has shown, many of the letters and notebook entries of Melville's neighbor and literary ally Nathaniel Hawthorne bespeak his misgivings and, what is more, his artistic self-consciousness about the limitations of the popular short story form, a genre on which Hawthorne depended financially for much of his early career and by which he felt increasingly trapped as it became his only means of economic survival.⁶⁹ In a notebook entry of June 1843, he attests to the anguish and dissatisfaction associated with this fast and demanding mode of literary production: "The necessity of keeping my brain at work eats into my comfort. . . . I keep myself uneasy, and produce little, and almost nothing that is worth producing."⁷⁰ Magazine work, according to Nina Baym, required Hawthorne to write quickly and steadily, which left "no time for fantasizing, for waiting until an idea ripened, for picking, choosing, and discarding."⁷¹ As Baym contends, had Hawthorne wanted to embark on a novel-length project at this point, he would have been doomed to fail simply because the magazine work demanded too much time and stamina.

Although Hawthorne finally managed to overcome the obstacles set up by the technological changes in the publishing business, many of the texts dating from this flagging stage of his career attest to his acute sense of the growing cultural importance of technology, as well as its detrimental effects on the individual author.⁷² Whereas stories such as "The Old Apple Dealer" and "The Celestial Railroad" take issue with the naive technological optimism promulgated by many of Hawthorne's contemporaries, his self-reflexive metafictional discourses in "The Artist of the Beautiful," "Drowne's Wooden Image," and "The Birth-mark"

deal more specifically with the ideological foundations of Romantic writing, and they use cybernetic imagery in order to articulate the complex and paradoxical status of authorship in antebellum America. Like most of his fellow Romantic writers, Hawthorne was never a staunch technophobe, nor did he coldly turn his back on a young nation that welcomed technological progress as a means to further economic and political independence. Although his idealist aesthetic and the lingering influence of his austere Puritan background made him suspicious, to say the least, of antebellum progressivism, Hawthorne was by no means merely a Romantic reactionary or antimodernist. Neither, certainly, was his the Whitmanesque stance of the poet hailing the nation's rapid modernization and mechanical ingenuity. Rather, as Henry Fairbanks has argued, "Hawthorne had relatively little to say of the mechanical inventions which were just beginning to change the face of civilization."⁷³ Given the personal circumstances under which he labored to establish himself as a professional writer, it was only natural, however, that he became increasingly aware of the wide-ranging social and psychological effects of technology and, what was even more galling to him, the writer's growing entanglement with this influential force of modern life.

Among the major writers of the American Renaissance, only Walt Whitman seems to have embraced fervently the marvelous inventions of a rising technological society, thereby emerging as the nation's most influential and steadfast singer of modernity. Whitman's achievement, as Miles Orvell has pointed out, was precisely to have rooted his art in the most characteristic features of his time: the new forces of science and technology.⁷⁴ Nowhere is Whitman's enthusiasm for technology more apparent than in his preface to the 1855 edition of *Leaves of Grass*. "The American poets are to enclose old and new," he writes in an idiosyncratic prose style that perfectly mirrors the verve and stamina of his poems, "to him enter the essences of the real things and past and present events . . . the noble character of the young mechanics and of all free American workmen and workwomen . . . the factories and mercantile life and laborsaving machinery. . . . For such the expression of the American poet is to be transcendent and new."⁷⁵

As he continues to enumerate the marvels and technical achievements that garnered the attention of antebellum Americans, Whitman becomes even more explicit about the leading role that science and tech-

nology assume in regard to modern poetry. They not only act as encouragement and support for the poet who sets out to capture the spirit of contemporary America but also provide the formal means—that is, the structure and language—for this prodigious task. It is true, says Whitman, that “the anatomist, chemist, astronomer, geologist, phrenologist, spiritualist, mathematician, historian and lexicographer are not poets, but they are the lawgivers of poets and their construction underlies the structure of every perfect poem.”⁷⁶

If we consider his emphatic adoption of science and the new forms of industrial production, it is not surprising that Whitman also hailed the technically enhanced dissemination and marketing of his art. “Of the twenty-four modern mammoth two-double, three-double, and four-double cylinder presses now in the world, printing by steam,” he boasts in a letter to Emerson, “twenty-one of them are in These States.”⁷⁷ What is more, while for writers such as Hawthorne and Melville the newly invented technique of stereotyping and, as a result, the expansion of antebellum book production represented the bane of their artistic project, the multiplying of copies and new editions seemed to blend in nicely with the kind of career that Whitman, from the very start, had laid out for himself. “These thirty-two Poems I stereotype,” he told Emerson, “to print several thousand copies of it. I much enjoy making poems. . . . I keep on till I make a hundred, and then several hundred—perhaps a thousand.”⁷⁸

Sheer numbers as well as the mass production of literary texts were certainly not to intimidate the energetic singer of the New World. On the contrary, the unhampered proliferation of data and information, be they literary or prosaic, is itself, as Whitman asserts in the same letter to Emerson, an essential ingredient of modern American culture, a token of the widening spectrum of reckless and free modes of life that were never elsewhere thought possible. Because of its unique celebratory style, his paean to the cultural importance of reading in antebellum America deserves to be quoted at length:

The twelve thousand large and small shops for dispensing books and newspapers—the same number of public libraries, any one of which has all the reading wanted to equip a man or woman for American reading—the three thousand different newspapers, the nutri-

ment of the imperfect ones coming in just as usefully as any—the story papers, various, full of strong-flavored romances, widely circulated—the one-cent and two-cent journals—the political ones, no matter what side—the weeklies in the country—the sporting and pictorial papers—the monthly magazines, with plentiful imported feed—the sentimental novels, numberless copies of them—the low-priced flaring tales, adventures, biographies—all are prophetic, All waft rapidly on. I see that they swell wide, for reasons. I am not troubled at the movement of them, but greatly pleased. I see plying shuttles, the active ephemeral myriads of books also, faithfully weaving the garments of men. . . . What a progress popular reading and writing has made in fifty years! What a progress fifty years hence! The time is at hand when inherent literature will be a main part of These States, as general as steam power, iron, corn, beef, fish.⁷⁹

Whereas Emerson detested the economic entanglement of his art, and Thoreau, pushing the antimaterialism of his mentor even further, hoped to see the written word enshrined as “the choicest of relics,” Whitman engages a different approach to the variegated modes of writing and reading that mark modern American society.⁸⁰ For this protean representative of his times, the diversity and sheer amount of printed material available are already indicative of a great literary future for America. Although his attitude toward the blessings of modern technology, especially during and after the Civil War, was bound to become more and more complex, at the outset of his career Whitman was stunned by the promising potential that he saw embedded in the wave of new machinery, and he ardently believed that it was the task of every true poet to hitch his work to the tremendous resources of mechanical ingenuity. By thus wedding his artistic endeavor to contemporary technological advancement, Whitman provided a model for subsequent generations of Americans such as Hart Crane, John Dos Passos, William Carlos Williams, Wallace Stevens, Claes Oldenburg, and Andy Warhol who would continue the ongoing project of the realignment of art and technology in modern industrial society.

In one of his notorious self-reviews, Whitman called special attention to the photographic portrait on the cover page of *Leaves of Grass* which he claimed represented synecdochically the contents of the book and the

body and soul of its producer: "Its author is Walt Whitman and his book is a reproduction of the author. His name is not on the frontispiece, but his portrait, half-length, is. The contents of the book form a daguerreotype of his inner being, and the title page bears a representation of its physical tabernacle."⁸¹ The semiotic chain of substitutions that is implied here—the daguerreotype representing the book representing the man—forcibly suggests the author's affirmative, unrestrained attitude toward the modern means of technical reproduction. Insofar as Whitman conceives of both the printed text and his photographic portrait, respectively, as a repository of the living author, his review is strangely reminiscent of Franklin's "Epitaph." Similar to Franklin with his belief in the redeeming power of the technology of print (as expressed in his idea of a "second edition" of his life), Whitman appears to be unperturbed by the dynamics of modern publishing and its tendency to turn the author, to modify Foucault's famous phrase, into a pure function of the text, a dead signifier of the division between the marketable commodity, on the one hand, and its human, nontechnological originator, on the other.

What is even more remarkable, by offering his photograph as an equivalent for his "authentic," biological self, Whitman assumed the cybernetic posture, which had troubled so many of his Romantic fellow writers, with astonishing ease. More than a century after the polytechnical genius of Benjamin Franklin, here again was a poet who adopted the mimetic faculties inherent in the new modes of technical (re)production, thus making a claim for the increasing mechanical incarnation of the author as text or, in this case, as daguerreotype.

chapter two

MACHINE ART REVISITED

HAWTHORNE'S ARTIST(S) OF

THE BEAUTIFUL

Is it too wild a thought, that my fate may have assumed this image of myself, and therefore haunts me with such inevitable pertinacity, originating every act which it appears to imitate, while it deludes me by pretending to share the events, of which it is merely the emblem and the prophecy?

Nathaniel Hawthorne, "Monsieur Du Miroir"

Among antebellum writers who responded in their work to the ubiquitous presence of the machine in mid-nineteenth-century America, Nathaniel Hawthorne stands out as one of the most critical and ambiguous voices. At the time he embarked on a fledgling literary career during the early 1830s, Hawthorne had already witnessed the opening of the first textile mill in Waltham, Massachusetts (1814), the first crossing of the Atlantic by the steamship *Savannah* (1819), the opening of the Erie Canal (1825), and the beginning of the first steam locomotive service in Carbondale, Pennsylvania (1829). If Hawthorne took issue with his country's euphoric response to such technological achievements in many of his short stories, sketches, notebooks entries, and, at least peripherally, his second novel, *The House of the Seven Gables* (1851), he was

also trying to position himself within a fictional framework that would bring into conjunction his idealist notions of art and his ultimate insight into the primacy of the material world. To negotiate the paradoxical complexity of this position, Hawthorne repeatedly relied on cybernetic imagery as a form of symbolic self-representation that best captured the rapidly changing conditions of modern society and the effects thereof on the work of literary authors.

The threat of technological encroachment, of being “un-manned,” as Emerson put it, by the all-encompassing machine, figures prominently in many of Hawthorne’s shorter works. If we take into account that the modern form of the short story was itself an offshoot of technological innovations that speeded up the printing process and, at the same time, significantly changed the conditions of antebellum publishing, it is not hard to see why short fiction, above all other literary genres, should become the major representational mode of early nineteenth-century discourses on technology. Although utopian novels concerned with technological progress and its social consequences abound toward the end of the century, there is little doubt that for the period before the Civil War, the bulk of literary cultural criticism is primarily associated with the short story form.¹ Although the formal complexity and far-reaching implications of his treatment of technology have been constantly overlooked, Hawthorne is well known for having cast his apprehensions about the ongoing mechanization of American society in a number of highly ambivalent short stories. Regardless of the range of topics and narrative tools these stories bring to bear on the issue of technology, they all seem to register the fact that the rapid initiation of new inventions and scientific techniques marked a crucial and defining moment in the course of modern history.

In his famous satire “The Celestial Railroad,” Hawthorne put to the test the driving role in history that many of his contemporaries ascribed to the onrush of new inventions. Since its interest in technological issues is primarily symbolic, “The Celestial Railroad” appears to be his most critical text in regard to antebellum progressivism. What is more, Hawthorne’s burlesque rewriting of Bunyan’s *Pilgrim’s Progress* has often served to indicate his negative stance on modern technology in general.² Certainly, machines dominate the allegorical setting of the story. Not only does the modern Christian alleviate the burdens of his pilgrimage

to the Celestial City by riding on the newly established railroad, but also he encounters various engineering achievements such as, for example, a daring bridge whose foundations have been secured by “some scientific process,” a tunnel lit by a network of gas lamps, and a steam-driven ferryboat.³ Hawthorne’s description of these improvements is indeed steeped in the language of the technological feats of his time to such an extent that a 1992 study of structural engineering refers to “The Celestial Railroad” as a fictional representation of the moment when “engineering began to apply the scientific method to structural problems” and “its practitioners had to address the question of structural failure and structural success more explicitly.”⁴

His many allusions to contemporary technical accomplishments notwithstanding, Hawthorne’s adoption of technological metaphors in the story is closely tied to his critical stance on specific cultural practices and philosophical trends. When the narrator finally arrives at the present-day Vanity Fair, where “almost every street has its church and . . . the reverend clergy are nowhere held in higher respect” (139), he ridicules the traveling lecturers of the burgeoning libertarian sects as employing “a sort of machinery” designed to distribute knowledge without the encumbrance of true learning. Since the passage also involves the text’s only reference to literary discourse, it bears being quoted in its entirety:

The labors of these eminent divines are aided by those of innumerable lecturers, who diffuse such a various profundity, in all subjects of human or celestial science, that any man may acquire an omnigenous erudition, without the trouble of even learning to read. Thus literature is etherealized by assuming for its medium the human voice; and knowledge, depositing all its heavier particles—except, doubtless, its gold—becomes exhaled into a sound, which forthwith steals into the ever-open ear of the community. These ingenious methods constitute a sort of machinery, by which thought and study are done to every person’s hand, without his putting himself to the slightest inconvenience in the matter. (139)

On the surface a critique of facile latitudinarianism and the widespread fad of providing instruction through oral rather than literary discourse, this passage also betrays Hawthorne’s anxiety about the ongoing

mechanization of American society. He does not, of course, conflate the actual use of machines with their effects on the cultural sphere; yet the machine metaphor he applies to the switch from written to oral educational modes is quite telling.⁵ The “etherealizing” of literature that seems to be at the bottom of his complaint epitomizes the difficult position of the literary author within the framework of an increasingly differentiated sphere of cultural production. Much as Hawthorne tries to defend the superior quality of the literary text (versus the sheer quantity of trivial lectures), his rhetorical strategy in “The Celestial Railroad” also lays bare the degree to which he himself appropriated the forces of modernization. Because Hawthorne thought of the shallow libertarian sects as a movement inevitably leading to moral and intellectual destruction, to use machinery—and, what is more, the most heroic machine of his times, the railroad—as an emblem of such inevitability reflects the symbolic power of modern technology, a power that held in thrall even the most conservative of antebellum writers.

Although it cannot be disputed that the mechanical ride to the godly city eventually turns into a technotopian nightmare, “The Celestial Railroad” is primarily an amusing burlesque on the liberal theology of Unitarians and transcendentalists and only secondly a representation of contemporary technological change. If we want to put Hawthorne’s view of technology into perspective, therefore, a brief discussion of “The Old Apple Dealer,” an often overlooked sketch that probably inspired Melville’s “Bartleby the Scrivener,” might be more rewarding. In this treacherously casual story Hawthorne juxtaposes the stationary posture of an old fruit seller to the enormous power and momentum identified with a train’s shrieking engine. At a cursory glance, it seems as if the narrator remains caught within the popular rhetorical framework of personifying the railroad as the modern fiend, the incarnation of the “fiery dragon” or mythic monster. If we read more carefully, however, it becomes quite clear that Hawthorne sensed acutely the dramatic cultural and psychological changes concomitant with the introduction of mass transportation. Just consider his depiction of the train’s arrival at the railroad station: “The travellers swarm forth from the cars. All are full of the momentum which they have caught from their mode of conveyance. It seems as if the whole world, both morally and physically, were detached from its old standfasts and set in rapid motion.”⁶

Not only does this passage communicate a feeling of cataclysmic change, namely, that with the velocity of the railroad the world itself is spun into a relentless, ever-increasing forward motion; but also it conjures up a view of technology that is at once broader and more analytical than the popular stereotype of the “steam fiend.” This proto-modernist approach to technology, I would argue, hinges on the infectious character not of the machine as such but rather of the secondary effects on the psyche of its users. The rapid progression of the rattling cars is described as transmitting its momentum onto the rushing travelers, thereby accelerating the rhythm of both individual and communal life. The influence of technology, as Hawthorne keenly observes, does not subside with the stopping of the engine or, for that matter, the disembarking of the passengers. By permanently affecting the cultural codes and behavior of those exposed to it, technological progress becomes indelibly inscribed in the very structure of modern society.⁷

Although the narrator registers a physical and symbolic antagonism between the old apple dealer and the smoke-spurting machine, the rest of mankind appears to have adapted well to the altered conditions of historical progress: “He [the apple dealer] and the steam fiend are each other’s antipodes; the latter’s the type of all that go ahead, and the old man the representative of that melancholy class who, by some sad witchcraft, are doomed never to share in the world’s exulting progress. Thus the contrast between mankind and this desolate brother becomes picturesque, and even sublime” (445–46). As a representative of the rearguard forces in history, the old man suddenly turns into a pitiful anachronism, a solitary, desolate sight amid the bustle of arriving cars and swarming travelers. In order to make his retrograde, antiquated appearance even more convincing, Hawthorne introduces a rival merchant of candies and cakes who likewise frequents the railroad depot, “a very smart and well-dressed boy of ten years old or thereabouts, who skips briskly hither and thither, addressing the passengers in a pert voice, yet with somewhat of good breeding in his tone and pronunciation” (444–45). The difference in age and agility that sets the two men apart is worth noting. Although both are operating on the same small-scale level of business, the younger peddler seems to encapsulate perfectly the inexorable rhythm of the machine. His entire attitude, the swiftness of his movements as well as the aggressive yet always clearly enunciated overtures to his

potential clients, mirrors the commercial spirit and technological self-confidence of antebellum America.

For the old man, by contrast, there is no place within the fast-changing framework of modern society; his static way of life and the train's emblematic velocity are "each other's antipodes." To be sure, by no means does Hawthorne condemn the onward course of history and its tragic implications for the old apple dealer. Rather, he makes him the fleeting object of his professional interest, thus positioning the artist as mediator between the waning forces of the past and the rising power of America's technological future.⁸ While his stagnant existence is avowedly anachronistic, for the poet the old man's sunken face retains "a volume of deeper and more comprehensive import than all that the wisest mortals have given to the world" (446). As a consequence, however, the now "sublime" product of poetic imagination is marginalized to an even greater degree. Since sublimity, according to Burke's famous definition, presupposes a physical and emotional distance between the sublime event and the observer, the apple dealer seems to be as far removed from the poet as from actual society.⁹ If this pathetic character is alienated from contemporary technological progress, his literary transformation into a token of sublimity is thus bound to reinforce rather than to undermine his precarious social status.

The Romantic notion of the writer's capacity to transform the material confines of ordinary men into everlasting works of art looms large in "The Old Apple Dealer." Toward the end of his tale, the narrator invokes the "spiritual essence" of the main character, an essence that shall be redeemed in a region far removed from his present one. Since this remark is directly preceded by a self-reflexive reference to the heightened sensibility of literary authors, we must infer that in this concluding passage the narrator is talking about his own text, or, in broader terms, the realm of all literary discourse. His portrait of the old apple dealer is neither "cast in iron" nor "hewn in everlasting adamant" (446), yet its spiritual essence is sure to survive. Much like "the vapours that vanish away while the essence flits upward to the Infinite" (446), the written text ultimately slips the shackles of its physical-textual embodiment, thereby entering the "Hall of Fantasy," that lofty dome, as Hawthorne calls it elsewhere, "likely to endure longer than the most substantial structure that ever cumbered the earth."¹⁰ This Neoplatonic bifurcation

of values—the ethereal but lasting products of the imagination, on the one hand, and their material manifestations, the physical markers of reality such as buildings, manufactures, the railroad, the printing press (and its final product, the marketable book), on the other—is typical of Hawthorne's assessment of the contested relations between literary authorship and modern technology. What is more, it determined to a great extent his choice of mirror images and cybernetic doubles as modes of representation that enabled him to articulate and, at least temporarily, suspend the tension between the material conditions of writing and the writer's lofty aspiration to create eternal ideas.

The disparity between the poetical imagination and what Hawthorne came to consider the blunt, mathematical accuracy of the technocrat informed his literary career from the very beginning. In "Old Ticonderoga—A Picture of the Past," an early travel sketch originally conceived as part of a group of experimental narratives known as "The Story Teller," Hawthorne expounds at length on the differences and respective values of these faculties.¹¹ During the first of several visits to Fort Ticonderoga, a colonial battle site eliciting memories of fierce encounters and heroic warfare, Oberon, the presumed narrator of the story, is guided by a young graduate in military engineering. It is hardly surprising that Oberon immediately registers their diverging responses to the historical site. Where the traveling poet sees nothing but a confusion of battered masonry and turf-covered hills of stone, his military guide detects the straight outlines of strategic architecture. Where the narrator's unscientific glance can discern no regularity, the young engineer is perfectly at home: "He fathomed the meaning of every ditch, and formed an entire plan of the fortress from its half-obliterated lines. His description of Ticonderoga would be as accurate as a geometrical theorem, and as barren of the poetry that has clustered round its decay."¹²

In contrast with the scientist and his detached, straightforward analysis, Oberon is interested more in the poetic dimension embedded in the labyrinth of moldy walls and abandoned ramparts:

I viewed Ticonderoga as a place of ancient strength, in ruins for half a century; where flags of three nations had successively waved, and none waved now; where armies had struggled, so long ago that the bones of the slain were mouldered; where Peace had found a heritage

in the forsaken haunts of War. Now the young West Pointer, with his lectures on ravelins, counterscarps, angles, and covered ways, made it an affair of brick and mortar and hewn stone, arranged on certain regular principles, having a good deal to do with mathematics but nothing at all with poetry. (187)

Accuracy versus confusion, mathematics versus poetry, the brick-and-mortar approach of the engineer versus the imaginative associations of the poet: these are the key oppositions on which Hawthorne rests his conception of creative writing.¹³ In doing so, he fervently rejects the Franklinesque ideal of a cross-fertilization between the useful and the fine arts, between technology and literature. Rather than merely putting historical fragments back into geometrical order, the poet conjures up a “new” past, recreates the human drama of bygone conflict according to his own view. He thus resembles the hoary veteran who, barely remembering the details of his former military engagement, reinvigorates the deserted scene with the colorful concoctions of his myth-laden war stories. When it comes to interpreting the material markers of history, “next to such a companion,” as Oberon muses in conclusion, “the best is one’s own fancy” (188). It is important to note, however, that Hawthorne’s emphasis on poetic idealization—vis-à-vis the profane perception of the young engineer—was never meant just to cover up the squalid aspects of his material surroundings. What he sought from the very beginning of his literary career, and what he would eventually find in the cyborg figure, was a form of representation of the real that enabled him to rise symbolically above the treacherous simplicity of mere appearances.

That Franklin actually figures as a forerunner and emblem of the technological worldview represented by the young engineer in the story can be further supported. While indulging in the dreamlike dramatization of a heroic past, the narrator of “Old Ticonderoga” is suddenly called back to the present by the shrill signal of a steamboat, conspicuously named *Franklin*. Because of the numerous ferries, freighters, and lumber boats that frequent nearby Lake Champlain, the whole country now strikes him as but “a cultivated farm.” With his poetic visions of a glorious past vanishing among the dull “realities,” Oberon’s tale thus ends on a melancholic if somewhat ambivalent note. Like Irving’s “Rip van

Winkle,” Hawthorne’s traveling storyteller registers “the lapse of time and change of circumstances,” or, more precisely, America’s metamorphosis from virgin land to capitalist market place. Yet he also addresses the important role of literary authors under the new economic and social conditions. As mediators between an idealist past and a materialist present, these authors are called upon to put forth visions of the nation’s historical roots that reach beyond the brick-and-mortar philosophy of contemporary technocrats.

The Writer’s View of the Laboratory

It should not go unnoticed that Hawthorne ultimately revised his rigid distinction between the two professions. In his famous triad of stories dealing with his vocation as a writer, “The Birth-mark,” “Drowne’s Wooden Image,” and “The Artist of the Beautiful,” Hawthorne deliberately blurred the lines between the representatives of science and technology and the representatives of artistic imagination. Of these auto-referential narratives, published in relatively rapid succession from March 1843 to July, 1844, “The Birth-mark” seems to have been his earliest attempt to resolve the inherent tensions of modern authorship by adopting cybernetic imagery. In order to make visible the material constraints on the labor of writing, or, for that matter, of artistic endeavor in general, Hawthorne involves all three characters of this seminal text in a series of border-crossing gestures and disjunctive representations. Not only are the scientist Aylmer and his assistant Aminadab, as Liz Rosenberg has pointed out, “alter egos, mirror images,” but also Hawthorne calls attention, according to Cindy Weinstein, to the “radical nature” of Aylmer’s wife, Georgiana’s, “transition from the domestic space to Aylmer’s laboratory.”¹⁴ By the same token, the text is just as indeterminate when it comes to its most decisive feature, Aylmer’s profession: the ambitious scientist also figures as a male artist trying to compete, in the words of Nicholas Bromell, with “the power of women’s labor.”¹⁵ On the surface a tale of oppression, gender, and the costs of contemporary progressivism (scientific and otherwise), “The Birth-mark” thus appears to be equally concerned with issues of representation, the definition of labor in antebellum America, and, finally, the role of the artist in an increasingly differentiated market economy.¹⁶

Because of its allegorical technique, the story relies heavily on the configuration of its major characters and their representational value. Its theme is misleadingly simple. Aylmer, an idealistic scientist, pursues with his wife's consent the fatal project of erasing a crimson birthmark from her otherwise perfect face. In preparation for the alchemical process necessary to remove this "visible mark of earthly imperfection," Georgiana takes up residence in Aylmer's laboratory.¹⁷ This is an ambiguous move that makes her a passive object of her husband's scientific experiments and, at the same time, an accomplice in their mutual scheme of transcending the biological confines of the body.¹⁸ With the help of Aminadab, the lab assistant in charge of the practical details of his employer's experiments, Aylmer eventually succeeds in eradicating the birthmark, only to realize that his now "perfect" wife is slowly dying from the unforeseen consequences of his interference with nature. Aminadab, who has opposed his master's quest for perfection all along, literally gets the final laugh. Representing sheer physicality and the material conditions of life—Aylmer at one point addresses him as "thou human machine" (51)—Aminadab utters only "a hoarse, chuckling laugh" to mark their tragic defeat. Having dared to improve on nature's eternal scheme, the Promethean scientist figure, in what seems to be the quintessence of this intriguing allegory, is left with nothing but the physical remains of a perfect woman, while "her soul, lingering a moment near her husband, took its heavenward flight" (56).

If most critics were eager to identify the allegorical characters of Aylmer and his assistant as opposed to Hawthorne's authorial position, many of those who recognized the poetic aspects of Aylmer's perfectionism likewise denied that he represents any concerns other than the author's general anxiety about professional excess.¹⁹ Certainly Aylmer is not a fully developed author figure, yet he is equipped with more than just the peripheral markers of poetic talent. In this context it is important to consider that Aylmer is the author not just of daring scientific experiments but of an autobiographical text as well, a scientific account of his professional career in which "every man of genius, in whatever sphere, might recognize the image of his own experience" (49). Long before the fatal incident, Aylmer's text connects its author to the spiritual strivings of art and makes explicit his continual effort to transcend the material grounding of his profession. As readers are informed, "the

book, in truth, was both the history and emblem of his ardent, ambitious, imaginative, yet practical and laborious, life. He handled physical details, as if there were nothing beyond them; yet spiritualized them all, and redeemed himself from materialism, by his strong and eager aspiration towards the infinite. In his grasp, the veriest clod of earth assumed a soul" (49). Aylmer's long-standing desire to "redeem" himself from materialism is reflected by the rigid differentiation of labor within his professional domain. By delegating the tedious chores of the laboratory to Aminadab, Aylmer tries to cleanse his experiments of the contagion of earthly matters the same way he tries to eliminate the incriminating stigma from Georgiana's cheek. Just as he discards everything but the spiritual aspects of his profession, he wants the birthmark excised from the personification of his scientific ideals.

That Georgiana functions as mirror image and screen onto which Aylmer projects his idealized notions about his work is further supported by his claim that she "had led [him] deeper than ever into the heart of science" and that "even Pygmalion, when his sculptured woman assumed life" (41), could have felt no greater ecstasy than he himself will once her imperfect nature is corrected. The fact that he explicitly compares his scientific efforts to those of the Greek sculptor Pygmalion once again calls attention to Aylmer's self-representation as artist in disguise.²⁰ What it also shows, however, is the symbolic tension between artistic labor, the feminine, and the practical demands of authorship in antebellum America. For Aylmer, Georgiana figures primarily as a paradigm of his ongoing entanglement with the material foundations of art, an entanglement he wishes to overcome symbolically, first, by conflating it with the Victorian anxiety about female sexuality, and second, by his attempt to improve and thereby ultimately regain control over Georgiana's body. Since the scientific means by which he hopes to achieve the separation of impure physis, on the one hand, and spiritual perfection, on the other, are themselves dependent on the execution of material processes, Aylmer's position is somewhat ambiguous. His efforts cannot but lead to structural failure, not because he dares to improve on nature's flawed design, but because he underestimates the practical implications of his work altogether.

As Weinstein notes, Hawthorne's story might also be read as a critical commentary on contemporary assessments of fiction, especially the idea

that the best works of fiction successfully conceal the techniques by which they are composed. "The figure of the author's hand," Weinstein writes, "provided critics with a short-handed way of criticizing a text. . . . Authorial labor had to remain invisible in order for literature to remain outside the fray."²¹ Although I doubt that the concealment of an author's tools was, as a form of critical caveat, endemic only among antebellum reviewers, Weinstein's point may well illustrate the inherent paradoxes of modern authorship. Although books had become as profitable a product as any other commodity in mid-nineteenth-century America, their authors, according to the Romantic ideology of literary work, must not be affected by the laws of the marketplace. If we replace Weinstein's structural term "writing techniques" with the machinery (technical, economic, and political) implicated in the process of book-making at large, we are much closer to the roots of Hawthorne's expressed authorial anxiety in stories such as "The Birth-mark." If the written text, as Thoreau euphorically put it, "is the choicest of relics [and] the work of art nearest to life itself," its mode of production and subsequent marketing are surely a different matter.²² The strenuous dichotomy of Romantic notions about art and its material manifestations in modern capitalist society has a continuous presence in Hawthorne's works. In "The Birth-mark," and even more explicitly in his auto-referential, programmatic story "The Artist of the Beautiful," he seems to be articulating this dichotomy in terms of a play of allegorical images whose composite, cybernetic nature betrays his constant awareness of the tangled relations of writing and technology.

Cybernetic imagery is indeed the most important structural device in "The Birth-mark." It tends to undermine the stiff, allegorical configuration of the story's main characters, and it functions as a structural mediator for the impeding forces of technology. Hawthorne's use of the cyborg ranges from an actual man-machine (Aminadab) to Aylmer's dream of enhancing the human body by scientific means. Obviously, Aminadab comes closest to our contemporary understanding of the cyborg. His composite nature as "human machine" makes him the antitype of both Georgiana's biologically deficient body and the emaciated, intellectual figure of Aylmer.²³ Given his special placement in Hawthorne's allegorical scheme, Aminadab appears to be a sign of the body's resistance to artificial improvement (he openly opposes his master's wish to remove

the birthmark) and, simultaneously, the incarnation of the body as machine, as ultimate functional and controllable entity. With his "great mechanical readiness" (43), this Romantic cyborg is perfectly fitted for the menial work of the laboratory, a task that demands the minutest execution of the experiments without any understanding of a single scientific principle. While Georgiana's body refuses to be rid of the tiny mark of its biological determinacy, Aminadab represents that determinacy to such a degree that he is transfigured into a soulless machine, a slave to nature as much as to his cerebral master.

The machinist metaphor is of utmost significance here. If eighteenth-century mechanical philosophy had recourse to the machine as explanatory model of body functions (as in La Mettrie's *L'homme machine*), Romantic literary discourse tended to conjoin the human and the machine for disciplinary reasons. Since Romantics took the body, especially its female, reproductive version, to represent synecdochically the material forces of nature, the imagery of mechanical regularity and perfection appeared equally adequate to hold in check and, ultimately, wield control over both women and technology.

The relations between the body, technology, and Romantic writing are complex if not paradoxical. To claim that antebellum authors were interested only in defying the negative influence of modern technology would thus be as problematic as overlooking their obvious aesthetic biases. The question of technology in regard to the major representatives of the American Renaissance must rather be treated as dialectical. Since antebellum authors were surrounded by an increasingly technological culture, it is only logical that they absorbed to varying degrees the language and metaphors of their fellow citizens. My intention here is thus to substantiate the contradictory Romantic adoption of mechanical paradigms by referring to other discursive fields in mid-nineteenth-century America. A good example of how the apparent order and regularity of the machine had come to pass as a model of social education and moral restraint is the famous Lowell textile mills in Massachusetts. Beginning operation in 1815, the Lowell mills soon developed into an important industrial site whose basic processes of cloth manufacturing were nearly all made possible by newly invented machines. The history of the mills as well as their rigid operating schedule and social regime are well documented.²⁴ Yet what makes this factory town especially interesting for

my argument is not its often cited role in preparing Americans for industrialization on a large scale but the fact that its mechanized work processes provided metaphors of containment and control in regard to the body.

Lowell's work force was made up primarily of young, unmarried women who were hired on a temporary basis and, after having operated the power looms for some four to five years, went back home to country. Because of the moral corruption and depravity traditionally associated with factory life, mill owners, local supporters, and progressive politicians joined in defending the mills as a form of republican "moral institution," an industrial school where the female worker's "intellect is strengthened, her moral sense quickened, her manners refined, her whole character elevated and improved, by the privileges and discipline of her factory life."²⁵ In addition to the orderly institutional setup of the factory itself, the relentless regime of the machines, proponents of Lowell's social ideology believed, would surely have a positive, restraining influence on the operatives.

The belief in the disciplinary power of machinery was even shared by the mill girls themselves. As Lucy Larcom, one of the principal contributors to the *Lowell Offering* who had worked at the mills during the late 1830s and early 1840s, tells us in her autobiography: "Even the long hours, the early rising, and the regularity enforced by the clangor of the bell were good discipline for one who was naturally inclined to dally and to dream, and who loved her own personal liberty with a willful rebellion against control. Perhaps I could have brought myself into the limitations of order and method in no other way."²⁶ If the female workers had thus internalized the "rigid code of morality under which they lived,"²⁷ the moral lesson of the machine was rarely lost on the mill's many visitors either. Elated by what he perceived as the quintessential manifestation of law and order, the Unitarian minister Henry Colman noted that "the moral spectacle here presented is in itself beautiful and sublime." Taking the automated mills as a model for society at large, Colman wanted Americans to function just like a machine, in which "each part retain[ed] its place, perform[ed] its duty," but which would come to a halt if the operator ever relaxed his or her attention and went morally astray.²⁸

Such uplifting comments on the moral impact of machinery were typi-

cal of antebellum social discourse. What is more, they also reflected the dominant scientific approach to mechanized labor. One of the most prominent commentators on the new modes of industrial production was the British inventor and professor of mathematics at Cambridge, Charles Babbage. Babbage is now famous for having designed one of the first crude computers, a calculating engine that could be programmed with a stack of punch cards, yet he is also known as the author of an important socioeconomic treatise later titled *The Economy of Machinery and Manufactures* (1832). For Babbage, as much as for other contemporary observers, one of the major functions and advantages of machinery was to discipline the human work force. Once the workers became attuned to the machine, their vices and weaknesses would be held in check, and the regularity, and thus controllability, of mechanized labor would ultimately be transferred, according to Babbage's technology-centered economy, to its human counterpart. "One great advantage which we may derive from machinery is from the check which it affords against the inattention, the idleness, or the dishonesty of human agents," he wrote.²⁹ Rather than being just a means of enhancing the production of goods, in this mathematician's view of the modern factory system machines figure as both control mechanism and overarching economic paradigm, thereby allowing Babbage to envision the workers as pacified automata and the work process as a series of calculable, automated interactions between man and machine.

The cyborgian underworker in "The Birth-mark" clearly represents this widespread authoritarian understanding of technology. Because of his synecdochic connection with the mechanical chores of the laboratory, Aminadab has turned into a human machine, an enslaved cyborg whose ignorance of any scientific principles makes him completely dependent on Aylmer's "mental" work. Semantically, his "great mechanical readiness" suggests not just practical skills but also absolute reliability, including the willingness to act only according to a superior's instruction. From this perspective, then, Hawthorne's laboratory perfectly embodies the power structure and division of labor within modern society. His critique of Aylmer's aesthetic perfectionism notwithstanding, the lab assistant never actually interferes with any of the experiments as such. Because of the restrictive character of mechanical labor, Aminadab's protest remains purely rhetorical, a melodramatic gesture

that falls short of effectively challenging the dubious authority of both science and art.

It is quite striking how Hawthorne advocates contemporary beliefs in the disciplinary potential of technology and, at the same time, blows the whistle on the artist's presumptuous enterprise. While his general distrust of the onrush of machinery has often been taken for granted, this barely camouflaged allegory of modern working conditions tells a different story. In "The Birth-mark," Hawthorne questions neither the application of technology as such nor its practical results, that is, the transmutation of workers into consenting, calculable machines. Far from embracing so-called Romantic rationalizations of the marketplace, he cautiously navigates the tensions and paradoxes inherent in modern authorship. By symbolically conjoining—rather than separating—the spheres of brawn and brain, of physical and mental work, Hawthorne strays from the beaten path of contemporary socioeconomic and aesthetic discourses in many decisive ways.

Visual Technology and the Politics of Self-Representation

In order to appreciate fully Hawthorne's ideologically loaded representation of creative work, one must keep in mind that the first half of the nineteenth century, when the bulk of what is now considered "classic" American literature was being produced, had also given birth to the middle class in America, an event that had widespread ramifications for the identity and social status of professional writers. Reflecting the growing specialization of the marketplace, which in turn opened up avenues for non-manual, "white-collar" occupations, the new social category covered not just the emerging class of businessmen, clerks, salesmen, and supervisors but the modern artist as well, who had just managed to dissociate himself from the eighteenth-century stigma of artisanal, that is, *manual*, labor.³⁰ For Hawthorne and his fellow writers, manual labor thus became the dividing line that set off their own work from that of the rest of society. Stories such as "The Birth-mark" are therefore, according to Joel Pfister, "not merely symptomatic literary responses to the experience of social change and contradiction; they reveal aspects of the formation of the subjectivity of a middle class that rose

to economic and cultural hegemony within the whirlpool of rapid social transformations."³¹

If many of Hawthorne's earlier works must be read within this wider context of the formation of new forms of subjectivity, they are equally indicative, I would argue, of his effort to import into his fiction aspects of contemporary technology on a scale yet to be acknowledged. True, Hawthorne often bemoaned, as Pfister reminds us, the drabness of manual occupations, especially when personally involved in them (as during his time at the Boston Custom House).³² Yet he also expressed considerable admiration for the shrewdness of human invention and the heroic relations that connect man to the machine. Just consider the following entry in his notebooks on March 6, 1856, written shortly after he visited the newly established Mersey Iron Foundry in England, then one of the major gun manufacturers in the world:

After inspecting the gun, we went through other portions of the establishment, and saw iron in various stages of manufacture. I am not usually interested in manufacturing processes, being quite unable to understand them, at least in cotton-machinery, or the like; but here there were such exhibitions of mighty strength, both of men and machines, that I had a satisfaction in looking on. . . . Trip-hammers are very pleasant objects to look at, working so massively as they do, and yet so accurately, chewing up, as it were, the hot iron, and fashioning it into shape, with a sort of mighty and gigantic gentleness in their mode of action. What great things man has contrived, and is continually performing! What a noble brute he is! . . . I had a respect for these stalwart workmen, who seemed to be near kindred of the machines amid which they wrought—mighty men sure enough, smiting stoutly, and looking at the fierce eyes of the furnace fearlessly, and handling the iron when it would have taken the skin off from ordinary fingers. They looked strong, indeed, but pale; for the hot atmosphere, in which they live, cannot but be deleterious, and I suppose their very strength wears them quickly out. But I would rather live ten years as an iron-smith than fifty as a tailor.³³

Not only do these remarks glaringly contradict the negative connotations of technology-determined characters such as Aminadab and Rob-

ert Danforth, the brawny, gigantic blacksmith of "The Artist of the Beautiful," but also they reveal Hawthorne's indecision in the face of the diverging patterns of antebellum conceptualizations of work. Wary of distinguishing his own artistic project from the rampant materialism of modern society, Hawthorne was nonetheless attracted by the cultural authority of technical inventions and the symbolic dimension unfolding from the psychological and physical adjustment of men to machines.

Many of Hawthorne's major tales of the period between 1846, when he published *Mosses from an Old Manse*, and 1850, the year he finished his first novel, *The Scarlet Letter*, I see therefore as a continuous reenactment of his battle for symbolic coherence, a battle in which Hawthorne frequently enlists cybernetic imagery to provide a unifying vision of Romantic spiritual epistemology, on the one hand, and the demands of the marketplace, on the other. This is also why the mechanical underworker in "The Birth-mark" cannot merely be taken as an antitype to either the scientist/artist figure or his wife. Since Aylmer himself is marked as a "composite man" whose "spirit [is] burthened with clay and working in matter" (49), the lab assistant more likely represents the material dependency of even the most ethereal of artistic endeavors, a dependency that his master keeps struggling to deny. By the same token, Aminadab does not share the pathological reading of the birthmark as a sign of earthly imperfection. His final laugh thus reveals a more adequate understanding of the nature of Aylmer's work. That the brutish and supposedly insensate cyborg has to act twice as mouthpiece for the author's self-reflexive stance offers further evidence of Hawthorne's desire to overcome the increasingly inflexible specialization of labor in antebellum society and, perhaps even more important, of his insight into the material grounding of all production, including the creation of works of art.³⁴

The point to be established here, then, is that Hawthorne's use of mechanical paradigms was by no means a one-directional enterprise inevitably leading to the apotheosis of Romantic spirituality. If, as in "The Procession of Life," Hawthorne speaks of the "demon of machinery" who is about to annihilate the soul, in stories such as "The Old Apple Dealer," "The Birth-mark," and, finally, the programmatic "Drowne's Wooden Image" and "The Artist of the Beautiful" he is equally aware of the pitfalls of an idealist aesthetic severed from its cultural, economic,

and technological context.³⁵ To shore up my argument that the cyborg figure must have appeared to him as a perfect model to account for the ambiguity of his authorial position, it is important to note that Hawthorne had long been obsessed with self-representation, especially in regard to mirror images and visual forms of discourse at large.

The trapdoors of representation, of seeing one's self transformed into an other that resembles and, at the same time, is an oblique distortion of the original self, are clearly the center of attention in his early sketch "Monsieur Du Miroir." In this ingenious text the narrator explores the deconstructive effects of doubling and mirroring in a manner that instantaneously calls to mind Lacan's emphasis on the formative influence of the mirror stage. If Lacan emphasizes the factitiousness of human identity by correlating the construction of the self with the imaginative responses to its distorted reflection in the mirror, so does the narrator of "Monsieur Du Miroir." Here is how he rationalizes the perpetual presence of his mirror image, this intimate double who, by some mysterious scheme, has intermingled with the fated course of his life: "Is it too wild a thought, that my fate may have assumed this image of myself, and therefore haunts me with such inevitable pertinacity, originating every act which it appears to imitate, while it deludes me by pretending to share the events, of which it is merely the emblem and the prophecy?"³⁶

The implications of this reversal of causality between the reflected image and its material source are quite striking. Since the former possesses the power of originating (rather than merely reflecting) events, the latter appears determined entirely by the doings of its ethereal, symbolic double. Steering cautiously around the epistemological snares of this insight into the significance of representation, Hawthorne's narrator is still full of doubt "which of [them] is the visionary form, or whether each be not the other's mystery, and both twin brethren of one fate, in mutually reflected spheres" (171). Although Hawthorne goes to great lengths to emphasize the mutual dependency of the "authentic" self and its reflection in the mirror, in "Monsieur Du Miroir" this does not lead to a revision of puritanical assessments of the human interest in self-representation as treacherous and basically blasphemous. Given his relentless probings of the shaky foundations of human identity, his concluding remarks in fact reveal an absurd, self-censoring attitude: "Thus do mortals deify, as it were, a mere shadow of themselves, a spectre of

human reason, and ask of that to unveil the mysteries, which Divine Intelligence has revealed so far needful to our guidance, and hid the rest" (171).

If "Monsieur Du Miroir" ends on a rather conventional note, it does inaugurate, however, Hawthorne's rewriting of Romantic conceptions of representation. According to M. H. Abrams's classic study on this topic, the Romantic account of poetic invention differed from its eighteenth-century predecessors in that it replaced the mechanical theory of association with an organicist essentialism, or, to put it differently, the analogy of art as an assemblage of ready-made material with that of art as an original, creative process comparable only to growing a plant. While Coleridge used the latter analogy strictly in connection with the superior faculty of the imagination, he retained the former (mechanical) analogy to describe the imitative mode associated with fancy. The passivity and mechanical character of fancy he saw embodied in the root metaphor of the mirror, a metaphor that contrasts blatantly with the alleged vitality of imagination capable of generating and producing a form of its own. Fancy, for Coleridge, is a "mirrorment," repeating simply what is already there, its aggregative and associative power acting only by a sort of juxtaposition.³⁷ Significantly, and somewhat paradoxically, Hawthorne's adoption of the mirror image in "Monsieur Du Miroir" exceeds its figurative meaning in Romantic poetic theory and, simultaneously, reinforces it on the level of morality. Far from conceiving "mirrorment" as merely a mechanical reflection, Hawthorne shied away at first from the consequences of his radical reconceptualization of representation. Once he had thus pondered the role of the reflected image as an important factor in the formation of subjectivity, it was only a matter of time before he would exploit fully its epistemological ramifications.

Considerable critical attention has been drawn to the fact that in *The House of the Seven Gables*, Hawthorne adopted the newly invented technique of the daguerreotype to establish what might be called his personal hermeneutics of visual representation.³⁸ This text, as Alan Trachtenberg has cogently noted, incorporates to a considerable degree contemporary discourses on photographic representation, and it seems as if by 1851, when the novel was originally published, that the blasphemous notion of "mirrorment" has turned into a publicly accepted prac-

tice.³⁹ Just recall Hepzibah's anxiety about the glamorous world of commerce in antebellum cities that, by sheer contrast, made the prospects of setting up a provincial "cent-shop" of her own look utterly discouraging: "Groceries, toy-shops, dry-goods stores, with their immense panes of plate-glass, their gorgeous fixtures, their vast and complete assortments of merchandize, in which fortunes have been invested; and those noble mirrors at the farther end of each establishment, doubling all this wealth by a brightly burnished vista of unrealities!"⁴⁰

Yet this is far from the only instance in which mirror images figure prominently in *The House of the Seven Gables*. Since one of its major characters is a professional daguerreotypist whose photographic reproductions are directly implicated in the unraveling of the complex plot, it is appropriate to say that technical modes of visual representation are among the core issues of Hawthorne's second novel. While the popular imagination wanted the daguerreotype to be a transparent copy of the original, Hawthorne's daguerreotypist embodies instead the ambiguities and reversed power relations of visual discourse. In this "humble line of art," neither the subject nor the photographer is in a position to control the chemically reproduced image. On the contrary, in the crucial picture of Judge Pyncheon, which the "Daguerreotypist" has "taken, over and over again, and still with no better result" (91), the differences between the appearance of the original person and the stern expression of the reproduced figure remain utterly striking. Pyncheon's skillful efforts at concealment notwithstanding, the photographic process—or so it seems to be Hawthorne's astonishing plea for this modern means of visual reproduction—relentlessly brings to the fore the secret connection between the contemporary judge and his devious, puritanical ancestor.⁴¹

While using the daguerreotype to expose the hypocrisy of Judge Pyncheon, Hawthorne also positions mechanical reproductions within a particular system of meaning. In *The House of the Seven Gables*, it is very clear that the camera, as Trachtenberg suggests, "serves the discursive needs of its practitioners and clients."⁴² Since it does not have an independent ideology, its deconstructive momentum, the tendency to subvert the mere surface view of reality, is therefore not inherent in the specific technique by which the picture was produced; rather it reflects the discursive context (narrative and otherwise) in which the "modern engine of visibility," to quote Trachtenberg again, is applied. In Haw-

thorne's case, this context, I would argue, was related to the difficult task of accounting for the ongoing technologizing of antebellum society and the impact thereof on the identity and work of the modern author. While the invention of photography had triggered an outpouring of mechanical mirror images in its own right, the need for a master image, a visual narrative that would reflect the changing conditions of creative work and, simultaneously, mesh with the cultural landscape of mid-nineteenth-century America, was of paramount importance. This is perhaps what Walter Benn Michaels had in mind when he called the daguerreotype a means of seeing "through to the fixed truth behind the fluctuating movements of the 'public character.'"⁴³ To compress the fleeting signs of transition and change into a single image, to arrest symbolically the moment when the old social order is superseded by the unforgiving laws of the marketplace, had thus become a primary function of Hawthorne's hermeneutics of visual representation.

In "The Birth-mark," a story obsessed with mirror images and all forms of aesthetic replications, Hawthorne had already put the daguerreotype to such epistemic use.⁴⁴ The mechanical reproduction of Georgiana's face, however, reveals not so much the hidden features of the original as the nagging anxiety of the daguerreotypist:

[Aylmer] proposed to take her portrait by a scientific process of his own invention. It was to be effected by rays of light striking upon a polished plate of metal. Georgiana assented—but, on looking at the result, was affrighted to find the features of the portrait blurred and indefinable; while the minute figure of a hand appeared where the cheek should have been. Aylmer snatched the metallic plate, and threw it into a jar of corrosive acid. (45)

Georgiana's mechanical portrait mirrors once more the artist's vain attempt to overcome the material confinement of his work.

Above all else, the hand figures for Aylmer as a persistent marker of "earthly imperfection." Read in the larger social, economic, and political context, however, it also reflects contemporary concerns about the growing division of manual and mental labor as well as the conflicted search of the modern author for his or her professional identity. Because of its innate ambiguity, the daguerreotype seems to provide a fitting met-

aphor for the social and technological changes that determined antebellum America. Based on a mechanical process of reproduction, it would of necessity link its subject to the material foundations of reality. Much like the picture of Georgiana, which automatically zooms in on the birthmark, visual representations such as the daguerreotype or, somewhat later, the photograph are wont to foreground the mechanism of production.

It is interesting to note that the human body did not lend itself easily at first to being photographed. As if resisting the highly symbolic transmutation into chemical matter (the fixing of one's image on plate or paper), humans did not come out well in early photography. This was due to the fact that, with limited light sources and only rudimentary photographic chemicals available, moving objects were either blurred or grotesquely distorted from the long period of exposure. Early critics of the daguerreotype often complained about this major fault. As one commentator scathingly described a group of plates, "Masses of greenery appeared only as silhouettes, and nowhere were any people to be seen; in a word color and life, the two parents of poetry, were lacking."⁴⁵ Yet the fixing of living images on a chemically coated plate proved to be a problematic venture not just in terms of practical photography. It also launched questions as to the ontology of the representation itself. Arrested in time, space, and motion, were the reproduced subjects still to be counted among the living, or were they, as Michaels suggests, in some sense already dead?⁴⁶ Purporting to transcend the confines of biology by way of a chemical-mechanical process, photographic reproductions of the human body could well be considered as cutting across the human and the technological, the living and the non-living. Early photography thus offers another example of Hawthorne's interest in cybernetic imagery, an interest spawned by the desire to realign the divided discourses on authorship and technology in mid-nineteenth-century America.

The Mechanician Turns Artist

Nowhere does this need for reconciliation with the leading role of technology in the literal and figurative construction of modern American society emerge more plainly than in "Drowne's Wooden Image" and "The Artist of the Beautiful." Read often as allegorical representations

of Hawthorne's Romantic view of art, both stories expressly combine issues of technology and the stratification of labor with aesthetic discourse. Although they do not abstain from exposing the author's discontent with the machine age, these auto-referential texts also direct our attention to the contested status of authorship in a cultural sphere where technology was increasingly conceived as a force of original production and authenticity. Adopting many of the arguments launched in favor of photography's alleged realism (as opposed to the inferior mode of "artistic" representation), an article in the *Christian Examiner* in 1869 reflects the extent to which Hawthorne's contemporaries had become biased against the mimetic strategies of the fine arts.⁴⁷ According to its author, John C. Kimball, "it is not passion and power, beauty and sublimity, themselves, which [the fine arts] set before us but their appearance. Their mission, or at least their means, is to deceive." Machinery, by contrast, is said to bear "something of the same relation to art that real life does to the stage, that the hero who performs a deed does to the actor who shows it forth."⁴⁸

To this accusation Hawthorne would of course respond by insisting that literary representation is not just a treacherous reflection of the real world but an idealization, a transformation of the real into an image of pure spirituality which must then be viewed as the representation of an original artistic idea.⁴⁹ Yet he was also convinced that the products of the mind cannot (and should not) be cut off completely from their material underpinnings. Artistic creations—and here Hawthorne appears to deviate from both Romantic antimodernism and New England transcendentalism—are tied up inextricably with the physical medium through which they are conveyed to the public.

To acknowledge the material grounding of creative work—that is, the mutual dependency of the text (as tangible, commercial item) and the ideas it represents—is among the primary objectives of "Drowne's Wooden Image." Given just a cursory glance, the story seems to advocate conventional Romantic topics such as the distinction between purely mechanical and artistic forms of representation, aesthetic spirituality, and the figure of the artist as creator of an original work of art. Traditionally it has thus been taken as a linear translation of Hawthorne's Romantic conception of art into fiction.⁵⁰ Yet such reductive readings only perpetuate the dominant evaluation of Romanticism as

an escapist and essentially self-serving ideology. What is more, they tend to suppress the recurrent textual allusions to the interfaces of art and the material, economic, and political conditions under which it is produced.

"Drowne's Wooden Image" once more brings to the fore one of Hawthorne's favorite topics: the transformation of a representative of the working class into an artist. Drowne is a young woodcarver whose reproductions of human figures, though wrought with outstanding talent, as yet lack the final stroke of genius. When Copley, a celebrated painter and member of the Boston cultural elite, comes to visit Drowne's humble workshop, he calls him a "Yankee mechanic," a manual laborer in thrall to the production of cheap imitations of nature. But Drowne works hard to overcome the inherent restrictions of his "mechanical" occupation. That the aspiring craftsman finally succeeds in infusing into one of his wooden likenesses the "ethereal essence of humanity" would appear to connect him to Hawthorne's most famous mechanician-turned-artist figure, Owen Warland in "The Artist of the Beautiful."⁵¹ What many readers have missed, however, is not just that each story accentuates different aspects of the creative process at hand, but also that in both cases artistic inspiration is shown to be highly controversial, publicly unacknowledged, and ostensibly short-lived. Thus, Drowne creates but once, and even for this finest piece of art, the wooden image of an exotic female figure, he seems not to have chosen the right material. "If this work were in marble," as the patronizing Bostonian tells him, "it would make you famous at once; nay, I would almost affirm that it would make an era in the art" (313).

The outward appearance of Drowne's achievement becomes even more of an issue when the painter insinuates that, for artistic purposes, the statue must remain unpainted. The appeal to functional simplicity contradicts the practical requirements of the commissioned work (she is designed to be used as a ship's figurehead and elicits a fervent response from Drowne, who, behaving like a "true" artist, brushes aside any aesthetic laws outside his own universe of production: "I know nothing of marble statuary, and nothing of a sculptor's rules of art. . . . Let others do what they may with marble, and adopt what rules they choose. If I can produce my desired effect by painted wood, those rules are not for me, and I have a right to disregard them" (313).

Given the economic circumstances under which he labors, Drowne's

rebellious gesture reveals itself as an act of sheer irony. While eschewing the aesthetics of the cultural establishment on the one hand, he tacitly complies on the other with the expectations of his client, Captain Hunnewell, who had ordered a conventional—that is, fully painted—figurehead. That Drowne's image is going to embellish a vessel significantly named the *Cynosure* might thus be read as an indication that the ambitious woodcarver has sold himself to the devil of commerce.⁵² Yet it might also be taken as a sign of Hawthorne's disillusionment with Romantic conceptions of creative work in general.

Such a nonconformist reading could be further corroborated by a textual reference that has as yet escaped critical attention altogether. It has long been a staple of Romantic theory that true artists should be able to create *ex nihilo*, that their work should add to the mass of things already in existence. "In one sense, and in great measure, to be peculiar is to be original," writes Poe in his review of Hawthorne's tales, "and than the true originality there is no higher literary virtue."⁵³ Innovativeness and authenticity are also major factors in separating Drowne's finest product from the heap of decorative carvings he has manufactured earlier. If his figureheads, his cheap busts, and grotesque urns were all designed after popular allegorical models, this latest statue embodies the spirit of a woman who has no match either in real life or in mythology. It is "as if, not being actually human, yet so like humanity, she must therefore be something preternatural" (314). Because of its composite ontology, the female figure wields a lasting influence on the public's imagination. Among Drowne's Puritan peers there are not a few who would swear having seen her transmogrify into an actual human being as she and Hunnewell were entering the vessel for its next voyage. Within the framework of Romanticism, the constant commingling of matter and spirit, of the real and the represented body, assumes major significance. To transform dead matter into the ethereal yet lasting mode of artistic discourse was, after all, one of the uppermost concerns of Romantic aesthetics.

If the Romantic artist is called upon to exceed—rather than simply reproduce—the material limitations imposed on his work, this does not, however, apply to Drowne's wooden image. As I pointed out earlier, even his most artistic carving is marked by the stigma of commercial production, of being designed according to the express wishes and specifica-

tions of his client. What is more, Hawthorne makes it very clear that the awe-inspiring image is itself essentially a reproduction of a living person, a young Portuguese lady who had fled her country because of political rebellion and who is now sheltered by Captain Hunnewell. Significantly placed at the very end of the story, this information cannot but expose the exaggerated encomiums to Drowne's artistic achievement for what they are: a strained effort at artistic exceptionalism and a naive attempt to secure social renown for the artist outside the overpowering influence of American capitalism. By introducing the authentic model of the figurehead, Hawthorne demotes its claim to both aesthetic originality and professional idealism. Neither the general concept nor the physical details of the statue have sprung from Drowne's imagination. As a stunningly faithful reproduction of the original, the figure stands out primarily for its superior technical execution. And as a commissioned, true-to-life rendering of his client's secret lover, it tacitly participates in the commercialization and marketing of art which Hawthorne, especially during these early stages of his career, experienced as an unavoidable yet extremely stressful struggle for survival.

Two years before the story originally appeared in *Godey's Magazine and Lady's Book*, he had confided in his notebook: "The fight with the world—the struggle of a man among men—the agony of the universal effort to wrench the means of life from a host of greedy competitors—all this seems like a dream to me."⁵⁴ Although the dreamlike suspension of professional competition refers, above all else, to the private respite Hawthorne found in his recent marriage to Sophia Peabody, it was auto-referential texts such as "The Birth-mark," "Drowne's Wooden Image," and "The Artist of the Beautiful" that allowed him to articulate allegorically the sociocultural implications of authorship in antebellum America.

Of these stories, "The Artist of the Beautiful" clearly marks the culmination of Hawthorne's critique of Romantic ideology. By stressing the practical consequences of the artist's search for complete autonomy, the text explicitly questions the Romantic idea of art as an autochthonous, independent mode of production. Moreover, in "The Artist of the Beautiful," Hawthorne brings to bear with even greater force the image of the cyborg on his representation of contemporary technology and its impact on the writer's profession. Had Emerson ever written a short

story, as a contemporary British reviewer poignantly remarked, he would have written "The Artist of the Beautiful."⁵⁵ According to the sheaves of critical comment, a majority of which would readily subscribe to that perception, the story's most prominent feature is its narrativization of artistic production from the perspective of American transcendentalism. True, the story of Owen Warland and his search for the ultimate aesthetic ideal reverberates with a variety of transcendentalist tenets: the polarities of reason and understanding, imagination and fancy, materialism and idealism, to name just a few. Very few commentators, however, have noticed that these topics are introduced in terms of a far-reaching crisis of modernization and cultural conflict.⁵⁶ Only if we read "The Artist of the Beautiful" as a parable of artistic work under the shifting social conditions of modernity are we able to account for its widespread allusions to machines (such as steam engines or the cotton gin), to automata (the Man of Brass by Albert Magnus, Bacon's Brazen Head, and a few other mechanical apparitions), to reproduction or, as the only woman in the text has it, "the notion of putting spirit into machinery," and last but not least, to authorship and the fledgling identity of the professional writer.⁵⁷

It is certainly not by accident that the main character, Owen Warland, is above all a gifted if somewhat distracted mechanic and only secondly the hapless artist of the beautiful. Although the two vocations are obviously at odds, a fact that accounts for much of the plot, it is quite remarkable how snugly the discourse on aesthetics is incorporated into a discourse on mechanics. After all, it is not a painting, sculpture, or poem that Owen Warland aspires to create but a mechanical butterfly, that is, a living machine or, in the terms of this study, a Romantic cyborg. Hawthorne's choice of a replicated animal as the symbolic embodiment of the artist's aesthetic dream is by no means arbitrary. It reflects the widespread practice of imitating the biological by technical means, a practice that has long marked the Western attitude toward technology.

As a result of the heightened interest in mechanical paradigms (of which La Mettrie's physiological reworking of the Cartesian *bête-machine* is just one case in point), the late eighteenth and early nineteenth centuries became especially obsessed with the construction of animated machines or automata.⁵⁸ The historian of technology Derek De Solla Price has suggested that "some strong innate urge toward mecha-

nistic explanation led to the making of automata, and that from automata has evolved much of our technology, particularly the part embracing fine mechanism and scientific instrumentation."⁵⁹ To put it another way, the numerous toys and automated gadgets that populated the drawing rooms of the affluent classes were not just instrumental in furthering technological progress; they were also taken as explanatory models of widespread natural and cultural phenomena, including the increasing mechanization of capitalist societies.

A prominent name in the annals of inventors of automata is Wolfgang Ritter von Kempelen (1703–1804). Although he is best known for his successful diplomatic career at the court of Empress Maria Theresa, von Kempelen was also engaged in constructing two of the most famous machines of his time: the so-called Chess Turk of 1769 and the Talking Machine (1778), which, although it could not really talk, was able to utter various well-distinguished mechanical sounds. The Chess Turk, by contrast, had only the appearance of a machine. The marvelous contrivance looked like a mechanized replica of a Turk that would play chess, accompanied by the obtrusive cranking and whirring of machinery. Yet it was fraudulent. The midget hiding inside and operating its elaborate mechanism was so ingeniously concealed that the Chess Turk fooled most of its admiring spectators, including Frederick the Great, Napoleon I, and, later on, the American public. When, in 1826, the mechanician and entrepreneur Johann Nepomuk Maelzel brought the Turk to the United States, where it was continuously on exhibition until destroyed by a fire in Peale's museum in Philadelphia in 1854, it drew considerable public as well as literary attention. The mystery enclosed in this sham automaton prompted Poe to provide a criminalist solution in an essay titled "Maelzel's Chess Player" (1836), and it is thought to have inspired Ambrose Bierce's ingenious story "Moxon's Master" (1893), in which a chess-playing robot attacks his inventor when it loses to him.

Beyond this unmediated influence on American literature, the Chess Turk as well as the many other automata that were built during the late eighteenth century and throughout the nineteenth are important because of their role as symbolic representations of the shift from agricultural to fully industrialized production and its concomitant cultural and behavioral changes. Above all else, automata were intricate, cunning little machines in their own right. More often than not, the interior,

which was regularly exposed to the public after the show, revealed a complex design of mechanical parts mysteriously set in motion by the experienced hand of the craftsman; hence, these animated machines ideally epitomized the technical knowhow and ingenuity of early modern manufacturing. Yet, in a way no less obvious than their being taken as icons of the latest advances in technology, automata also represented the *social* machinery of industrialized society. When seen in action, their staccato moves and the meticulously choreographed interplay of “body” parts might be read as at once the model and mirror image of modern man. Put in such perspective, the technical limitations imposed on the android’s body all but equaled the psycho-physical restrictions called for by the brutal regime of industrial production and the repressive demands of mechanical labor. Moreover, owing to the transparency of their working principle, automata were the target of all sorts of materialist fictions of control and domination. They were read as “living” proof of the idea of a well-regulated cosmos, of a natural world that could no longer withhold its secrets from rational man and would in due time yield to his conquering spirit.

While the animated toys devised by the leading mechanics of the late eighteenth century corresponded nicely with the rhetoric and economic practice of early capitalist societies, their literary counterparts, the man-machines (and woman-machines, to be sure) of Romantic literature and nineteenth-century fiction in general betrayed a different attitude toward the promises of modern science and technology. Here the staggering gait of the android often signified the threatening liminality of the human who has become a machine, a lifeless monster determined not so much by his or her free will as by the demands of its artificial organism. It is important to note here that many of the dystopian projections of technology in nineteenth-century literature are centered on this idea of the encroachment on the body by the machine. Unlike the popular mechanical android, which was but an elaborate mechanism openly imitating the human, the fictional automaton was more like a modern cyborg, an imaginary concept comprising at once material and visceral components. By centering “The Artist of the Beautiful” on the production of a mechanical butterfly, Hawthorne draws on all of these different attitudes toward animated machines. From its awe-inspiring “naturalness” to the sensibility with which it responds to the unwitting observer,

this living machine obviously served a wide range of contemporary associations with technology.

Among the far-reaching implications of the initiation of machinery into modern society, the notion of evading organic reproduction by way of mechanical inventions, symbolically made visible in the construction of robots or automata, is instrumental for an understanding of “The Artist of the Beautiful.”⁶⁰ As one can readily see, Hawthorne’s parable of the technician-turned-artist abounds with allusions to technology, reproduction, and gender. Thus, Owen Warland is introduced as a tinkerer with ladies’ watches, a person of childlike sensibilities and a delicate, effeminate stature. “If any human spirit could have sufficiently revered the processes so sacred in his eyes,” the narrator tells us, “it must have been a woman’s” (460). Accordingly, it is the visible shape of Annie, the reluctant object of Owen’s sexual desire, in which “the spiritual power that he worshipped, and on whose altar he hoped to lay a not unworthy offering, was made manifest to him” (464). His struggle to produce a spiritualized automaton likewise is cast in terms of a procreative sexual act or, what is perhaps more to the point, an exercise in artistic parthenogenesis. As the disbelief of his peers leads him to remark, the mechanical creature “may well be said to possess life, for it had absorbed [his] own being into itself” (324). It is therefore not the marvelous contrivance as such that distinguishes the artist from the technician but the act of instilling life into matter.

In the end, however, the Promethean deed proves to be ephemeral and transitory. While the artist has painfully been delivering the offspring of his spirit, “organic nature,” as one critic puts it, “has passed him by.”⁶¹ Annie, who is now married to the town’s blacksmith (a striking incarnation of Hawthorne’s idea of the working class), has become a matron and mother. It is certainly ironic that the tiny mechanism is finally crushed by the clumsy hands of Annie’s child. What was meant as a bridal gift for his former love eventually becomes a sacrifice to the forces of biological reproduction, a highly ambiguous offering on the altar of femininity. By juxtaposing in this manner organic, mechanical, and artistic procreation, “The Artist of the Beautiful” unmistakably adds to established Romantic discourses on authenticity and original production. Insofar as it articulates an anxiety about both the machine and female reproductive capacities, the emphasis is shifted, however, from

merely a reflection on aesthetics to a critical assessment of the tangled relations of technology, gender, and professional writing.

How do these reflections relate to the question of authorship? As I mentioned earlier, in order to have the watchmaker become an artist, Hawthorne supplies him with the power to animate, to spiritualize machinery. His ambition is not "to be honored with the paternity of a new kind of cotton machine," as he vehemently affirms, but to produce a "new species of life and motion" (453, 466). It is thus not by imitating nature but by competing with it, by putting forth "the ideal which nature has proposed to herself in all her creatures, but has never taken pains to realize" (466), that Owen Warland assumes authorship. At this point, however, the story seems to verge on sheer paradox: If the forces of reproduction are essentially female, as the text seems to suggest, how could authorship then prevail as a predominantly male activity?

There is little doubt that Hawthorne conceives of the crude mechanical forces of the real as pure *maleness*, associated with the strength and generative power of paternity. "No child of yours," quips the brawny blacksmith, taking in Owen's delicate frame, "will have iron joints and sinews" (453). And as for Annie, the young woman proves to be as much "a creature of his own as the mysterious piece of mechanism" (464). Having fancied her his equal and ally, the artist is at last utterly deceived. Given their reproductive capacity, as the story persistently implies, women are inextricably bound up with the realm of matter and practical reason. It is therefore only by replacing female reproductive power with an alternative power, at once generative and spiritual, that Hawthorne is able to reconcile the forces of organic and artistic production. Insofar as he represents nature's procreative principle on a more refined and consummated level, the artist simultaneously incorporates and transcends the feminine. While negotiating the antagonistic powers of generation for his artistic purposes, the man of art, according to Hawthorne's gendered analysis, reaches for a subtler, more ethereal form of paternity. However frail and transient his imaginative child may be, as carrier and conduit of an original idea it takes on a quality more real than reality itself. "When the artist rose high enough to achieve the beautiful," as we learn in the concluding paragraph of the story, "the symbol by which he made it perceptible to mortal senses became of little

value in his eyes while his spirit possessed itself in the enjoyment of the reality" (475).

Owen Warland perfectly embodies the ambiguities of artistic production in antebellum America. Not only does the name reflect his vocational crisis, that is, the "warring" ideals of mechanical and mental labor, but also his original occupation situates him within a discursive field that was closely connected to the early industrialization of American society and its corollary republican utilitarianism (hence the manifold references to punctuality, regularity, and utilitarian values in general).⁶² Since the structuring of everyday life around dependable measurements of time was crucial in the transition from agricultural to industrial society, the watchmaker becomes an appropriate site for the narrativization of cultural change and conflict.

According to the cultural historian Lewis Mumford, "the clock not the steam-engine, is the key machine of the modern industrial age."⁶³ Like perhaps no other single mechanism, the clock at once furthers and symbolically represents the development of industrial society. The modern timepiece not only became a ubiquitous symbol of mechanical ingenuity, but also was itself an accurate automatic machine:

There had been power-machines before the clock . . . but here was a new kind of power-machine, in which the source of power and the transmission were of such a nature as to ensure the even flow of energy throughout the works and to make possible regular production and a standardized product. In its relationship to determinable quantities of energy, standardization, to automatic action, and finally to its own special product, accurate timing, the clock has been the foremost machine in modern technics.⁶⁴

With its protagonist professionally rooted in the production, repairing, and operation of timekeeping instruments, "The Artist of the Beautiful" should be read, above all else, as a commentary on the process of industrialization and its concomitant reliance on the clock as a key machine of the modern age. Moreover, by focusing on the gendered dynamics of reproduction, Hawthorne touched on a contested issue of his day. At a time when many Americans were beginning to think of machinery

as an authentic generative force in its own right, Hawthorne's self-reflexive parable effectively probed the interstices of mechanical and artistic production. And it seemed to bring forth a view of the artist as far more practical-minded than most critics were willing accept.

This view hinged on the conviction that there is no way out of technology, and that therefore the artist must not merely accept the material foundations of his work but actively seek to reconcile it with the demands of modernization. As Hawthorne took pains to explain in much of his earlier work, the particular contribution of the writer to modern society is not to defy technological progress as such but to add to it a spiritual dimension, a historical perspective that contains and at the same time alleviates the frictions caused by social change. Setting the register for many of the discourses to come on technology and authorship, these strikingly up-to-date texts should no longer be excluded from the study of what some critics cogently called nineteenth-century America's "covert culture."⁶⁵

chapter three

DO MACHINES MAKE HISTORY?

EDGAR ALLAN POE AND THE

TECHNOLOGIZING OF DISCOURSE

The fable implies that the individual to possess himself, must sometimes return from his own labor to embrace all the other laborers. But unfortunately, this original unit, this fountain of power, has been so distributed to multitudes, has been so minutely subdivided and peddled out, that it is spilled into drops, and cannot be gathered. The state of society is one in which the members have suffered amputation from the trunk, and strut about so many walking monsters,—a good finger, a neck, a stomach, an elbow, but never a man.

Ralph Waldo Emerson, "The American Scholar"

Poe's literary career perfectly exhibits the politics and paradoxes of modern authorship. While various critics insisted that his eclectic, auto-referential style prefigured the death of the authorial self as an autonomous producer of art, Poe actually committed much of his nonfictional writing to establishing "literary labor," to borrow his own frequently used term, as a full-grown profession within the economic structure of antebellum America.¹ Although he would not have subscribed to the progressivist belief in the wonder-working agency of technology, he was

nevertheless in favor of the increasing technologizing of literary activity, adopting it as a tool to replace the metaphysical grounding of European Romanticism by a strictly constructivist, if not always coherent, poetical theory. And in contrast to the antimaterialism and otherworldliness on which these Romantic approaches to literature customarily depended, Poe never condemned the economic dependency of professional authorship as such (although he did complain about the meager salaries paid to literary workers).² As a shrewd observer of the literary marketplace, he would eagerly cater to its shifting aesthetic preferences. Hence, after the economic depression of the late 1830s, he concentrated on the writing of relatively lucrative tales while at the same time dramatically reducing the production of unsaleable poetry.³ In keeping with his market-oriented writing policies, Poe himself was deeply involved in the publishing industry, by then one of the most important economic sectors in the United States.⁴ As editor of several leading literary magazines, which were all located in the nation's financial and economic centers (notably, Philadelphia and New York), he was fully aware of the material influences on the modern writer. Since social conditions permeated not only his production of literature proper but also his work as literary critic, theoretical essayist, and magazine editor, Poe appears to be an ideal figure for exploring the professionalization of creative writing and its connection to the larger economic and technological system.

Poe's primary concern in life, as one critic rightly put it, was "being an author or engaging in authorship."⁵ Consequently, the philosophy and techniques of writing figure prominently in both his fictional and his theoretical texts. If his enthusiastic evaluation of creative work occasionally came close to Emersonian essentialism, Poe did not share the transcendentalists' notion of art as a metaphysical enterprise. Rather he emphasized the material reality of the literary text itself, that is, the physical medium by which an original idea is communicated (its textual representation) and, of no less importance, its physical-psychic effects on the audience. If, in the latter case, it is the writer who applies certain textual technologies in order to control the reader's emotional responses, in the former the author himself appears determined by the technological conditions of his writing. Since Poe's interest in manipulating the reader through the meticulous execution of literary technique has already been sufficiently-documented, I will focus in what follows on the

complex relationship between writer and text or, more specifically, the technology of literary production and its impact on the practices of modern authorship.⁶

The technological determinacy of writing is a major issue in two of Poe's nonfictional prose pieces in particular, both of which were either neglected or persistently underrated by literary critics: first, the speculative article "Anastatic Printing" (1845) and, second, his early essay "Maelzel's Chess-Player" (1836), his piece about a famous chess-playing automaton that was on exhibit in many major American cities during the 1830s and 1840s.⁷ Although the latter text does not touch directly on the topic of writing, the skillful deconstruction of Maelzel's claim that his artificial chess player consisted only of "pure machinery" can be easily linked to Poe's own poetological project. What is more, it brings to the fore once again the imagery of the cyborg. While questioning the existence of a logically reasoning automaton, "Maelzel's Chess-Player" conjures up a clearly cyborgian vision: a human being controlling and operating the mechanism from inside the machine. By thus illustrating the conflation of mind and matter, the physical wedding of the human to the machine, the essay provides us with a perfect blueprint for Poe's technology-dominated poetics.

Yet "Maelzel's Chess-Player" is not the only text in which Poe explores the cyborg's widespread symbolic ramifications. Looking at his tales, one cannot fail to note that Poe was obsessed with the uncanny sphere where the living blurs with the non-living. Along these lines one encounters everywhere in his fiction protagonists who either are suspended between life and death ("Loss of Breath," "A Tale of the Ragged Mountains," "The Man That Was Used Up"),⁸ appear to have conquered death symbolically ("Ligeia," "The Oval Portrait," "Eleonora"), or experience the horrors of living entombment ("The Fall of the House of Usher," "The Premature Burial," *The Narrative of Arthur Gordon Pym*) and extended, metaphorical death scenes ("The Pit and the Pendulum," "The Facts in the Case of M. Valdemar," "A Descent into the Maelström").⁹

Although many of these texts implicate technology to varying degrees, it is in the political satire "The Man That Was Used Up" that Poe grounds his argument entirely on cyborgian imagery. The story, on which I center my discussion here, powerfully underwrites the relations

between authorship and technology. As a quasi-authentic historical figure, its cyborg protagonist epitomizes not just the linguistic constructedness of literary texts and their fictional characters, but the technologization of all discourse, including the representation of past events. By thus extending the relevance of textual technology to fields of discourse other than pure literature, specifically the emerging area of historical study, Poe envisions the literary author as both a professional perfectly adapted to modern technological society and a member of an intellectual vanguard whose technical expertise is essential in deciphering the tropological character of our understanding of reality in general. In blazing contrast with the Romantic search for transcendent truth, for a "world elsewhere," to borrow Richard Poirier's famous phrase, Poe situated his conception of the real solely within the realm of literary discourse.¹⁰ That his deconstructive endeavor often relies on the structural heterogeneity of the cyborg figure could be taken, then, as a further indication of his antagonism to Romantic literary politics as well as his efforts to place the professional writer within a cultural framework that became increasingly infused with technological paradigms.

As the German critic Max Bense has pointed out, technology takes the place of ideology in Poe's work.¹¹ Insofar as he repudiates the Romantic belief in the imaginative and aesthetic transparency of the world, Poe shifts the emphasis from metaphysics to methodology, or, in different terms, from ideological assumptions about the content and production of art to a technological, constructivist explanation of how and why art works. "Most writers," says Poe in "The Philosophy of Composition"—

poets in especial—prefer having it understood that they compose by a species of fine frenzy—an ecstatic intuition—and would positively shudder at letting the public take a peep behind the scenes, at the elaborate and vacillating crudities of thought—at the true purposes seized only at the last moment—at the innumerable glimpses of idea that arrived not at the maturity of full view—at the fully matured fancies discarded in despair as unmanageable—at the cautious selections and rejections—at the painful erasures and interpolations—in a word, at the wheels and pinions—the tackle for scene-shifting—the step-ladders and demon-traps—the cock's feathers, the red paint and

the black patches, which, in ninety-nine cases out of the hundred, constitute the properties of the literary histrio.¹²

Not so Poe himself. In "The Philosophy of Composition," "The Poetic Principle," "The Rationale of Verse," and many of his literary reviews, he invites the reader precisely to glimpse the "wheels and pinions" that operate the machinery of poetry and fiction. The adoption of technical terminology in this passage can hardly be overlooked. Wheels, pinions, tackles, step-ladders, demon-traps: such phrasing clearly invokes Poe's technological conception of literary texts. While the writer is free to select specific modes of composition, the text itself appears as a complex mechanical aggregate of interchangeable parts. Artistic creation, according to this view, is a painstaking, cumulative process. It is based not so much on the originality of ideas, as Poe maintains in his response to an alleged plagiarism in "The Raven," as on novel combinations of what is already known, in other words, on the novelty of the writer's style.¹³ By thus treating creative writing as a form of textual technology whose ordering principles could be laid bare and whose achievements could be reproduced over and over again, Poe transferred the technology-laden, utilitarian rhetoric of Jacksonian America to the level of poetical theory.

With its emphasis on reworking previously written material, Poe's technological poetics comes dangerously close to advocating literary theft. In fact, Poe's remarks on this subject are far from being consistent. On the one hand, he publicly admonished major writers such as Henry Wadsworth Longfellow for stealing from well-known English texts, and, on the other, he tried to dispel allegations of plagiarism in regard to his own work by stating that one could not expect a writer to invent new forms and ideas from scratch. Likewise, in his introduction to *Pinakidia*, he repeatedly draws attention to the secondhand nature of the classic compilations of brevities and aphorisms ("audacious pilferings from those vast storehouses of brief facts, memoranda, and opinions in general literature"),¹⁴ only to claim later on that his own example of the genre consisted mostly of "original" material. In "Marginalia 35" Poe is perhaps at his most outspoken on the issue of plagiarism. After a quotation from Boileau's *Satire*, he insists that there are "fellows who really have no *right*—some individuals *have*—to purloin the property of their predecessors." That some authors must not exploit older sources

is directly related, according to Poe's discriminatory logic, to their lack of technical skills, the fact that their "clumsily stolen bulls never fail of leaving behind them ample evidence of having been dragged into the chief-den by the tail."¹⁵

The juxtaposition of writers who are entitled to creative recycling and those who are not assumes major significance in regard to Poe's technocratic definition of professional authorship. What distinguishes these two groups is not so much the opaque notion of the "true" poet and his eminent place in the culture of learning—this would have been Emerson's line of argument—as the command of literary technique. As Poe implies in his prefatory remarks to "Marginalia," a genre that is in itself a perfect example of his notion of recontextualization, it is of utmost importance that the pasting together of isolated, fragmented texts remains "imperceptible." Because it illustrates metaphorically the encroachment of technology on Poe's theory of composition, the opening paragraph of "Marginalia" bears being quoted in full:

In getting my books, I have been always solicitous of an ample margin; this is not so much through any love of the thing in itself, however agreeable, as for the facility it affords me of pencilling suggested thoughts, agreements and differences of opinion, or brief critical comments in general. Where what I have to note is too much to be included within the narrow limits of a margin, I commit it to a slip of paper, and deposit it between the leaves; taking care to secure it by an imperceptible portion of gum tragacanth paste. (107)

The textual process implied here is actually threefold. First, there is the merging of one's own (marginal) text with that of another writer; in a second step, then, the original text is severed from the commentary it has engendered in the reader; and third, the now autonomous fragments of derivative text are recontextualized, that is, made "original," through their compilation as marginalia. The means by which Poe purports to connect physically the more voluminous separate notes to the original book are particularly interesting. Gum tragacanth, after all, is not just any ordinary glue but a paste used for the preparation of scientific specimens, a use Poe must have been aware of through his collaboration with Thomas Wyatt in preparing *The Conchologist's First Book* in 1839.¹⁶ If

the paste originally serves biologists in disguising the act of "reconstituting" a dead animal to its former shape, it is equally fitting for a description of how to make the blending of original and derivative text "imperceptible."

The list of texts in which Poe comments on the uses and abuses of copying literary property is long and covers much of his divergent fictional and critical output. The recycling of texts written by other authors, however, constituted more than a recurring theme in Poe's oeuvre; it was actually at the very basis of his understanding of literary work. As Stephen Rachman has argued, Poe redesigned the concept of plagiarism to suit his own poetological needs, that is, to support the establishment of a theory of creation "where texts are lifted but put to different ends, ends that are paradoxically creative and 'original,' which call into question our concepts of literary property and proprietorship."¹⁷ Moreover, to vindicate his rewriting of the Romantic idea of originality in accordance with the changing definitions of modern authorship, Poe introduced scientific techniques as a metaphorical point of reference for the composition of literary texts, thereby highlighting simultaneously the intimate relations between writing and technology and the growing impact of technological discourse on areas of work other than the purely technological.

Technology and Originality

It is worth noting that Poe did not give up on artistic originality altogether. Insofar as he replaced original ideas with the praxis-centered concept of literary technique, he seems to have avoided the ideological pitfalls of hard-core Romanticist essentialism. Yet in one of his later works, "The Power of Words" (1845), he also argued for the "physical" capacity of discourse to engender, to "speak into birth," the "passions of the most turbulent and unhallowed hearts."¹⁸ In doing so, Poe once again opened the door to ideological assessments of authorship. If the poet's profession—like any other modern profession—depends on a fixed set of technical skills, the physical foundation of literary work, the written text itself, is still depicted by Poe as if it were able to transcend miraculously its innate materiality. The structural incommensurability of this position has led numerous critics to dismiss Poe's theory of artistic cre-

ing. Not only could it help to make it cheap and easy “to diffuse knowledge and amusement” (85) among the public, but also it would do so on a very large scale. Since it would evade the time-consuming process of setting type, “a hundred thousand impressions per hour, or even infinitely more, can be taken of any newspaper, or similar publication” (85).

There is little doubt that in “Anastatic Printing” Poe is far from opposing technological progress. In an interesting twist of argument, he uses technology as leverage to overcome the material determinacy of modern society by turning it into a place where information is superabundant and where written texts—regardless of their economic value—have become the most important and accessible of all commodities. Reading Poe’s enthusiastic appraisal of this new printing procedure, one is therefore tempted to question the view that Romantic writers saw technology as a surrogate enemy which they attacked in order to preserve an elitist literary culture against the reign of the emerging masses.²² What we encounter here is, on the contrary, a stance perfectly at ease not just with the laws of the marketplace and its corollary, the mass production of literary texts, but also with the prospects of technology acting as mediator between the individual writer and the larger society.

If the economical benefits of anastatic printing are already tremendous, the ways in which it affects the working conditions of literary authors are at least equally promising. To begin with, the new technique will have a disciplinary impact on the composition of and the ideas presented by a certain text. Since there is an “easily intelligible reciprocal influence between the thing written and the manner of writing” (86), it follows that an improvement in style will inevitably be noted as an improvement in terms of content. Insofar as the former is concerned, this will be achieved, according to Poe, by the increased accuracy, concision, and distinctness of presentation expected from a manuscript that will go into print without the guidance of editors or publishers.

In addition to streamlining the form of the manuscript, anastatic printing will also dramatically increase the writer’s authority over his text. As Poe repeatedly mentions, it allows the printer to reproduce new copies directly from the original manuscript, thereby eliminating the tedious and expensive process of typesetting. Traditionally, the manuscript was considered to be a transitory stage, a necessary yet provisional form of text that served as an intermediary between the writer, on the one

hand, and the product of the printing press, the material book, on the other. From the writer’s perspective, however, the final book itself seldom surpassed the manuscript “either in accuracy or in beauty.” Thus, conventional reproduction often made the original text susceptible to the “ruinous intervention of the publisher” (85). Not so with anastatic printing. If he chooses to have his text printed according to the new procedure, “all that a man of letters need do, will be to pay some attention to legibility of MS. arrange his pages to suit himself, and stereotype them instantaneously, as arranged. He may intersperse them with his own drawings, or with anything to please his own fancy, in the certainty of being fairly brought before his readers, with all *the freshness of his original conception* about him” (85; my emphasis).

The ability to preserve and, simultaneously, convey to the reader the “aura” of the original manuscript appears to be the most important factor associated with anastatic printing. Put another way, what Poe is advocating here is in fact the replacement of an established technology by a new one that is more sophisticated than the former and would serve better to alleviate the alienating conditions of modern book production. If Walter Benjamin is correct in assuming that works of art, when turned into mass-produced commodities, will lose the “aura” of uniqueness and authenticity, then Poe had already devised a way out of this modern dilemma.²³ By promulgating anastatic printing as a more fitting technique with respect to the project of bookmaking, he managed to turn technology itself into an essential palliative for the writer’s estrangement from his privately written, soon-to-be published text.

Apart from the rather oblique, highly biased inferences as to anastatic printing’s purported potential for providing occupation for women writers, the most astounding insight presented by Poe is related to his assessment of literary works as determined equally by literary and mechanical labor.²⁴ “The value of every book,” as seems to be the bottom line of Poe’s professional commitment to this new technology, “is a compound of its literary value and its physical or mechanical value as the product of physical labor applied to the physical material” (86). At present, he believes, the latter value (that is, the material, economic foundations of the book market) greatly dominates even the most esteemed of literary texts.

Yet if anastatic printing could be instituted as the general mode of

space of discursive acts, a space defined by the same mythopoeic techniques and plagiarist strategies that were essential to his modernist writing policies. If the author of the "The Man That Was Used Up," as Gerald Kennedy once suggested, was "more or less continuously after 1835 . . . immersed in a warfare which involved reputations, cliques, and artistic standards," this story might well be taken as "an outrageous conceit of dismemberment from the colloquial notion of 'using up' or abusing an author in print."⁵⁶ But also, in an environment of ever-proliferating texts, the writer's work appears to be just as "artificially" constructed—that is, constituted by the textual replacement parts of other writers—as the body and historical renown of General John A. B. C. Smith. While tackling an area supposedly foreign to the writing profession, Poe's enigmatic story, once more, only reflects the modern production of literary texts. Moreover, it turns the topical dominance of technology in antebellum discourse into its structural *modus operandi*. Having theorized that technology possesses explanatory power even for the aesthetic project of the writer (or historian, for that matter), Poe reveals himself to be deeply affected by contemporary technological paradigms. Far from being the nemesis of Romantic writing, the technologizing of discourse figures in Poe's fiction as a means of promoting literary authors as interpreters and mediators of the diverse cultural changes determining modern society.

In order to comprehend the tangled skein of attitudes and responses to technology in antebellum America, one must be aware that machinery did not just figure as the icon of a marvelous technological future. It also represented an important epistemological paradigm with ramifications for almost every area of human knowledge. Given his well-known interest in contemporary scientific and technological paradigms, it was only logical that Poe should adopt mechanical imagery in order to articulate his revisionist view of historical representation. His creation of a man whose biological parts have been replaced by machinery thus reflects the lingering influence of mechanical philosophy and its machinist description of the human body. If Poe's topic is not so much that machines themselves make history, "The Man That Was Used Up" nevertheless implies that the processes by which we attain a coherent vision of the past are technologically determined. There is little doubt that the prosthetic figure of General John A. B. C. Smith represents one of Poe's

finest attempts at what might be called fictional "diddling"; yet, if we follow the tale's constructionist argument, his cybernetic body also refers us to the narrative mechanics by which random names and events are transformed into historical facts. In answer to the rather provocative question posed by the title of this chapter, one is therefore tempted to suggest that for Poe, machines do after all make history, if only—that is, exclusively—literary history.

chapter four

FIGURING MODERN AUTHORSHIP MELVILLE'S NARRATIVES OF TECHNOLOGICAL ENCROACHMENT

I can't stop yet. If the world was entirely made up of Magians, I'll tell you what I should do. I should have a paper-mill established at one end of the house, and so have an endless riband of foolscap rolling in upon my desk; and upon that endless riband I should write a thousand—a million—billion thoughts.

Herman Melville to Nathaniel Hawthorne, November 1851

If in 1851, shortly after critics had roasted his sixth and most ambitious novel, *Moby-Dick*,¹ Melville could imagine his writing as unstoppable, many of his forthcoming texts were marked by an equally unstoppable, highly ambiguous self-questioning of their author's literary efforts. In fact, his metaphor of his writing desk turned into an assembly line endlessly putting forth textual reproductions of a "billion thoughts" appears as a postscript to an all but desperate letter to Hawthorne in which he tries to resign himself to having, once again, his "paper allegories but ill comprehended."² In weird, melodramatic terms, Melville conjures up a unique literary bond between the two writers, mostly because Hawthorne, in a previous letter, had been full of praise for the momentous *Moby-Dick*; yet he also expresses his grief about the lack of public rec-

1900, he “began to feel the forty-foot dynamos as a moral force, much as the early Christians felt the Cross.” What he experiences as especially striking in this new technology of electromechanics is the smooth, noiseless way in which the dynamo wields its enormous power: “Barely murmuring—scarcely humming an audible warning to stand a hair’s breadth’s further for respect of power—while it would not wake the baby lying close against its frame.”⁴⁴

This image of the machine lulling a baby to sleep once more epitomizes the artist’s primary concern about technology and its solid footing in nineteenth-, or rather by then twentieth-century American culture: the replacement of the generative powers of art by the reproductive, purely mechanical powers of the machine. Writing at the end of a century that had seen enormous technological change, Adams, as his distancing stance of third-person autobiographical narration readily suggests, seems to forsake the creative forces of art altogether. By stubbornly clinging to a model whose intimidating procreative powers had never been duly acknowledged by Protestant America (the Venus and the Virgin), this avowedly nineteenth-century author thus finally surrendered to having “his historical neck broken by the sudden irruption of forces totally new.”⁴⁵

To be sure, authorship and the composing, publishing, and distribution of literary texts survived well into the days of electronic writing and storytelling. Yet, as I hope to have shown in this study, the late post-structuralist battles over the death of the author as inventor and proprietor of his or her text date back at least as far as the American Renaissance. By relentlessly negotiating the author’s position within the growing technological framework of modern society, Romantic literary discourse paved the way for more recent debates on the role of authorship under advanced conditions of reproduction and dissimulation. In his now classic essay “The Work of Art in the Age of Mechanical Reproduction,” Walter Benjamin describes Western art as being on the verge of a fundamental shift from originality to repetition, from the unique and authentic work of art to the mass-produced, dissimulating works of the machine. “Around 1900 technical reproduction had reached a standard,” Benjamin claims, “that not only permitted it to reproduce all transmitted works of art and thus to cause the most profound change

in their impact upon the public; it also had captured a place of its own among the artistic processes.”⁴⁶

Benjamin’s essay is concerned mainly with painting, photography, and film, yet its general argument applies to written texts as well. With technological progress and the concomitant proliferation of potential forums for amateur writers (such as newspapers, professional and special interest magazines, dime novels, serials, and so on), the distinction between author and reader, between the “real” and the “sham” writer, was increasingly blurred. In the age of mechanical reproduction, as Benjamin remarks elsewhere, “the reader is at all times ready to become a writer.”⁴⁷ Because of the ongoing differentiation of the work process, the majority of the work force is turned into “experts” (if only in a very circumscribed and specialized area), which is also to say that the reader is turned into a potential author: “As an expert—even if not on a subject but only on the post he occupies—he gains access to authorship.”⁴⁸

Inasmuch as Benjamin attributed the disappearance of authorship to technological progress, he added to a recurring theme of Western cultural discourse: an essentially technophobic anxiety about the loss of authorial control, a fear that resurfaced with each introduction of new and more powerful technologies.⁴⁹ To show that this anxiety did not wholly originate in the genuinely modern attitudes of Romantic authors, or, if you wish, that such anxieties were accompanied by an equally strong effort to co-opt technological paradigms into their respective literary projects, has been one of my core interests in conceiving and, finally, writing this book.

NOTES

Introduction

1. In Irving, *The Sketch Book of Geoffrey Crayon, Gent.*, 61-66.
2. As M. H. Abrams pointed out, Coleridge's organic principle emerged in response to what he saw as the "brick and mortar" thinking of dominant mechanical philosophy. While attributing the purely associative or mechanical faculties of reason—which had formerly been seen to comprise all of the inventive process—to *fancy*, Coleridge was able to invest his second and more important category, *imagination*, with everything that is unfixed, vital, and essentially creative. See Abrams, *The Mirror and the Lamp*, 156-225. The key passages of Coleridge's organicist poetics are in *Biographia Literaria*, 69-88.
3. Thoreau, *A Week on the Concord and Merrimack Rivers*, 91.
4. F. O. Matthiessen, *American Renaissance*, 133-75. *The Triumph of Romanticism* also contains Peckham's early influential essay "Toward a Theory of Romanticism." The importance of organicism as a popular New Critical paradigm can be traced in Fogle, "Organic Form in American Criticism, 1840-1870"; and in René Wellek's major survey "The Concept of Romanticism in Literary History." For a comprehensive historical evaluation of organicist metaphors in Western culture, see Channell, *The Vital Machine*.
5. This view is implicitly conveyed in Leo Marx's landmark study *The Machine in the Garden*. It also informs Kasson, *Civilizing the Machine*; and Eichner, "The Rise of Modern Science and the Genesis of Romanticism." Joel Black has argued for a more differentiated evaluation of the Romantic perception of science and technology. Trying to narrow the gap between the two discursive positions, Black wants the Romantics to be seen "not as a source or even as a

27. In her treatment of the philosophic foundations of English copyright law, Woodmansee identifies a similar shift as the defining moment in the development of the modern notion of authorship. Though neither of the earlier conceptions credited the writer with the responsibility for his creation, the eighteenth century, according to Woodmansee, departed from these models in two significant ways: "They minimized the element of craftsmanship (in some instances they simply discarded it) in favor of the element of inspiration, and they internalized that source of inspiration. . . . That is, from a (mere) vehicle of preordained truth—truth as ordained either by universal human agreement or by some higher agency—the *writer* becomes an *author*" ("The Genius and the Copyright," 427–29). See also Elizabeth Eisenstein's seminal work on the subject, *The Printing Press as an Agent of Change*.

28. Young, "Conjectures on Original Composition," 333.

29. *Ibid.*, 319.

30. *Ibid.*

31. In a brilliant and provocative reassessment of the idea of authorship and its reliance on such key concepts as originality, work, and property, Françoise Meltzer has exposed the shaky status of the notion of originality as a founding principle of the literary critical establishment. See Meltzer, *Hot Property: The Stakes and Claims of Literary Originality*.

32. As Charvat notes, "The profession of authorship in the United States began in the 1820's when Washington Irving and James Fenimore Cooper discovered that they could turn out regularly books which readers were willing to buy regularly" (*The Profession of Authorship in America*, 29).

33. Ironically, *The Sketch Book* is itself a good case in point. The first edition of *Sketch Book No. 1* (which comprised two thousand copies) was published simultaneously in four different cities; during the first two years alone, an estimated five thousand Americans were willing to pay the enormous price of \$5.37 for a copy. See Charvat, *The Profession of Authorship*, 33–40.

34. Irving, *The Sketch Book*, 56.

35. *Ibid.*, 62 (my emphasis).

36. For Bloom's theory of literary influence, see *The Anxiety of Influence*.

37. Rachman, "‘Es lässt sich nicht schreiben’: Plagiarism and ‘The Man of the Crowd,’” 52.

38. Sandra M. Gilbert and Susan Gubar begin their momentous study of nineteenth-century women writers by asking, "Is the pen a metaphorical penis?" and they go on to ascertain that indeed, "in patriarchal Western culture . . . the text's author is a father, a progenitor, a procreator, an aesthetic patriarch whose pen is an instrument of generative power like his penis. More, his pen's power, like his penis's power is not just the ability to generate life but the power to create a posterity to which he lays claim" (*The Madwoman in the Attic*, 3–6).

39. "Phaidrus," in *The Dialogues of Plato*, 139–40. Since Plato has become

notorious for barring the artist from his utopian Republic, his definition of writing as an original and lasting act is especially noteworthy.

40. Said, "Molestation and Authority in Narrative Fiction," 48–49. By supplying narrative space for the creation of fictitious worlds and characters, the novel, according to Said, represents an ideal platform for the author's desire to increase, to innovate, to make new. See also Said's book-length study *Beginnings: Intention and Method*.

41. Said, "Molestation and Authority," 49.

42. Young, "Conjectures on Original Composition," 319.

43. Gilbert and Gubar, *The Madwoman in the Attic*, 7.

44. Laqueur, *Making Sex*, 41.

45. Armstrong, "The Art of Preserving Health" (1781), quoted in Flynn, "Running Out of Matter," 156.

46. In his *Essay of Health and Long Life* (1724), the famous Dr. Cheyne addresses the working class as possessing "callous organs of sensation" or, even more drastically, "Ideots, Peasants and Mechanics," who are incapable of wit (quoted in Flynn, "Running Out of Matter," 154). Given the proliferation of learning and writing concomitant with the Enlightenment, it is not surprising that physicians became obsessed with negotiating the antithetical demands of the mind and the body. As Flynn convincingly shows, doctors increasingly depended on mechanical means—such as the chamber horse and other exercise tools—to cure the negative consequences of the sedentary activities of authors. Dr. Cheyne, then considered one of England's leading nerve specialists, had prescribed one such machine to Samuel Richardson in order to treat his depressive mood and accompanying physical disorders, suggesting that Richardson hire "an amenuensis and dictate to him riding on the new Chamber Horse" (*ibid.*, 147).

47. Among contemporary studies focusing on the material rather than purely textual aspects of literary production are Kittler, *Grammophon Film Typewriter*; Paulson, *The Noise of Culture*; Ezell and O'Keefe, *Cultural Artifacts and the Production of Meaning*; and Wutz and Tabbi, *Reading Matters*.

48. In his 1802 Preface to *Lyrical Ballads*, Wordsworth assumes that there is a formal engagement of every author "that certain classes of ideas and expressions will be found in his book, but that others will be carefully excluded." Although in *Lyrical Ballads* he had exchanged the "gaudiness and inane phraseology of many modern writers" for incidents and situations from common life rendered "in a selection of language really used by men," this by no means implies that Wordsworth gave up on ideas altogether. On the contrary, his expressed intention was to throw over the appearance of ordinary things a "colouring of imagination," thereby representing them in "the manner in which we associate ideas in a state of excitement" ("Preface to *Lyrical Ballads*, 596–97). The view that, above all else, it is ideas rather than their extraliterary (historical,

BIBLIOGRAPHY

- Abrams, M. H. *The Mirror and the Lamp: Romantic Theory and the Critical Tradition*. 1953. London: Oxford University Press, 1971.
- Adams, George Washington. *Doctors in Blue: The Medical History of the Union Army in the Civil War*. 1952. Baton Rouge: Louisiana State University Press, 1996.
- Adams, Henry. *The Education of Henry Adams*. Boston: Houghton Mifflin, 1961.
- Adams-Jefferson Letters. Vol. 2. Ed. Lester J. Cappon. Chapel Hill: University of North Carolina Press, 1959.
- Arendt, Hannah. *Between Past and Future: Eight Exercises in Political Thought*. New York: Viking, 1961.
- . *The Human Condition*. Chicago: University of Chicago Press, 1958.
- Auerbach, Jonathan. *The Romance of Failure: First-Person Fictions of Poe, Hawthorne, and James*. New York: Oxford University Press, 1989.
- Babbage, Charles. *The Economy of Machinery and Manufactures*. Vol. 8 of *The Works of Charles Babbage*. Ed. Martin Campbell-Kelly. London: William Pickering, 1989.
- . *Passages from the Life of a Philosopher*. Vol. 11 of *The Works of Charles Babbage*. Ed. Martin Campbell-Kelly. London: Pickering, 1989.
- Bann, Stephen. *Romanticism and the Rise of History*. New York: Twayne Publishers, 1994.
- Barbour, Brian M. "Poe and Tradition." *Southern Literary Journal* 10.2 (Spring 1978): 46-74.
- Barthes, Roland. "The Death of the Author." In *Modern Criticism and Theory*, ed. David Lodge. London: Longman, 1988. 167-72.

