THE POLITICS OF
PERFECTION

The millenarian promise of restoring mankind to its original God-like perfection—the underlying premise of the religion of technology—was never meant to be universal. It was in essence an elitist expectation, reserved only for the elect—the "happy few," in Robert Sinsheimer's felicitous (Shakespearean) phrase. Half the species, women, were expressly excluded (see appendix), and so too were the vast majority of the male population, who would likewise be left behind by the saints. Thus the cloistered monks—the spiritual soldiers of salvation epitomized by Joachim of Fiore's millenarian vanguard of *viri spirituales*—pursued their own privileged perfection far in advance of the rest of humanity, as did the mendicant friars who followed in their footsteps, as missionaries and schoolmen. The great explorers too believed that they alone had been chosen, and sent, to rediscover paradise, and the hermetic philosophers and learned magi they so inspired were similarly assured of their own special monopoly on divine wisdom. Stirred by the apocalyptic visions of just such an elite brotherhood of pious wise men, the scientific virtuosi of the sev-

enteenth century imagined themselves the blessed new saviors of mankind, best prepared by their studies and knowledge to meet again in the glorious kingdom to come. And the mantle of perfection they so proudly wore, woven by monks, was passed on, through the closed ranks and secret rituals of Masonic society, to the enlightened elite of modern civilization, the engineers.[1]

But the elite, other-worldly pretensions of all those who promoted and pursued the perfectionist religion of technology were belied by their worldly dependence and subordination. For it was ultimately from worldly power, which they served to enlarge and extend, that their own privileged position, and luxury to dream, derived. Thus Erigena first philosophized about the religion of technology while serving as court philosopher to the Carolingian monarch Charles the Bald, who fought for control over the crumbling empire created by his grandfather Charlemagne. And it was under Carolingian auspices, and in its service, that the Benedictine orders first gained their true terrestrial might and spiritual authority. Thereafter their privileges depended upon their fealty to feudal lords and lay kings, and, ultimately, upon their obedience to the papacy.

Though they were among the first to elevate the useful arts by lending to labor the dignity of worship, the Benedictines soon relegated the real work of their prosperous abbeys to their lay brothers, servant sisters, and peasant wage workers, while they devoted themselves exclusively to the liturgy, the scriptorium, and the garden. By the tenth century, for the Benedictine monks of Cluny, as Jacques Le Goff has pointed out, "labor was exalted mainly in order to increase the productivity and docility of the laborers."[2]

The same transformation subsequently overtook the Cistercians as well, the righteous reform Benedictines who had condemned the Cluniac corruption of monastic ideals. "The poor monks who once maintained themselves through manual labor," George Ovitt observed, "became feudal lords who supervised the work of others." Provided for by "an increasing manual labor force of serfs and wage earners," they amassed great wealth and enjoyed the privileges and prerogatives of the elite, in the service of popes and princes. Thus the Cistercian abbot Joachim of Fiore, though the author of a revised mil-

lenarianism which later fueled medieval rebellion, "was not con-
sciously unorthodox and had no desire to subvert the Church. It was
with the encouragement of no less than three popes that he wrote
down the revelations with which he had been favored." (Indeed, as
Bernard McGinn wrote, the millenarianism which Fiore inspired "was
as often a rallying cry for the defense of the established order as it was
a form of revolutionary ideology. . . . The evidence suggests that the
most important and effective innovations in apocalyptic ideas were
usually not the products of semi-educated renegades . . . but were pro-
duced by the establishment intelligentsia of the day." This was even
more the case in the seventeenth-century millenarian revival.)[3]

Heirs to monasticism, the mendicant friars likewise owed their
institutionalized existence and prestige to the papacy, which they
served, in pious attendance to repression and conquest, with unprece-
dented diligence and dedication. The friars were monks who had
abandoned the cloister in order to evangelize the world. As academic
scholars, they laid the intellectual foundations for papal authority as
well as science, and as missionaries they lent religious sanction and
support to papal, and later imperial, expansion. In the process, they
encountered the myriad menaces to established power—the imagined
army of Antichrist—which they warned about and warred against.
Thus the Franciscan Roger Bacon, an early enthusiast of technologi-
cal advance, proposed his prescient project of invention to popes,
urging that "the church should consider the employment of these in-
ventions against unbelievers and rebels. . . ."[4]

Columbus, of course, pursued perfection in the name of God,
guided by the words of prophets. But he did so with the support of,
and in fealty to, the Spanish monarchs, for whom he plundered the
promised land. The Renaissance magi labored at learning and mas-
tered their magic in pursuit of divine knowledge, only to share their
secrets for a sum with the royal patrons who underwrote their efforts.
The Rosicrucians, first trumpets of scientific sainthood, bound their
terrestrial fortunes to the ill-fated monarchy of Bohemia.[5]

The savants of the seventeenth-century scientific revolution
steered a similar course. Francis Bacon dreamed of a New Atlantis
but devoted his life's energies to the enrichment of the royal court. In

his vision of the millennium, as Margaret Jacob emphasized, Bacon "always located control of leadership in the millennial paradise firmly in elite hands." Likewise, in worldly affairs he sought to enlarge human dominion over nature while preserving intact the established order. In an age of incessant social instability, as James R. Jacob observed, "science [became] another means, along with work discipline and the reformation of manners, by which European elites, having distanced themselves from the people, [sought] to control and subject them to authority." Bacon himself disdained what he called the "innate depravity and malignant disposition of the common people." He exhorted his peers to learn from lowly artisans, not to emulate them but only to enhance their more exalted efforts. Galileo displayed a similar disdain for "women and ordinary folk"—"the shallow minds of common people"—and he urged the Church to hide from the people scientific truth about the heavens lest they become confused and troublesome. Bacon believed, however, that science would teach "the peoples [to] take upon them the yoke of laws and submit to authority, and forget their ungovernable appetites. . . ."[6]

Bacon's followers sustained this elitist outlook. Though they earnestly envisioned the advent of an earthly millennium, Hartlib, Dury, Plattes, and other early Baconians depended heavily upon parliamentary power and privileges and held to a rigidly hierarchical view of society. In their educational-reform efforts, for example, they promoted universal education but divided their schools into "mechanical" and "noble": the first to educate the masses in practical matters, the latter to educate the elite in theory and advanced science. The scientific societies which emerged in the seventeenth century, modeled upon Bacon's vision, owed their existence and allegiance to royal authority, and aristocratic (and increasingly capitalistic) patronage. Accordingly, they viewed their social mission in much the same way as Bacon had his. The Royal Society thus pooled "talents and interests in order to benefit the elite and not the people," argued James Jacob, "in order indeed to contain and exploit the people by drawing upon their knowledge and skills, while at the same time deflecting them from political and religious courses that threatened constituted authority."[7]

The mechanical philosophy, and especially the Newtonian system, served both church and state by providing a seeming naturalistic buttress to the inviolability of the established order. This legacy of the scientific revolution was perpetuated in the eighteenth century by the Newtonian Freemasons, science-minded aristocrats who combined mysticism and magic with a "dedication to order, hierarchy, and perfectibility." In the nineteenth century, it attained its fullest expression in the positivist philosophy of Auguste Comte—and in the person of the engineer who embodied it. Designed deliberately to counter the French Revolutionary tradition, Comte's engineering approach to society was aimed above all at the permanent re-establishment of order. "The motto that I have put forward as descriptive of the new political philosophy," Comte wrote, "is 'Order and Progress.' " "In all cases," he added, "considerations of progress are subordinate to those of order." Whether that order was to be achieved on behalf of a state or a capitalistic enterprise, or both, the engineers, in just the manner Comte envisioned, remained devoted to that end.[8]

In their elite obeisance and service to established power, the twentieth-century proponents of the religion of technology have outdone their predecessors. The engineers of nuclear weapons, endowed from the outset with the authority and limitless largesse of the state, have devoted their energy and imagination to an enlargement of state power. And their counterparts and colleagues in space exploration have done likewise. Von Braun aimed for the stars but hit London and Antwerp, on behalf of the Third Reich. Later he prepared for future terror on behalf of the American armed forces. Throughout most of their career, the men who built the U.S. (and Soviet) space programs served military ends; in their quest for space travel they brought the world but minutes away from mutually assured annihilation. Thereafter, under the nominally civilian auspices of NASA, they have continued to contribute to the militarization of space, in terms of both surveillance capability and the capacity for weapons deployment.

In the same setting, the pioneers of Artificial Intelligence, in quest of the immortal mind, have been sustained by the U.S. military—together with their disciples in Artificial Life, cyberspace, and

virtual reality. As they have trained their minds for transcendence, they have contributed enormously to the world arsenal for warfare, surveillance, and control. And they also have placed their technological means at the disposal of manufacturing, financial, and service corporations, which have deployed them the world over to discipline, deskill, and displace untold millions of people, while concentrating global power and wealth into fewer and fewer hands.

Finally, the genetic engineers, supported by the state, have laid the technological foundations for an Orwellian future. At the same time, they have turned their technical prowess to profitable advantage, becoming consultants, shareholders, and directors of entrepreneurial biotechnology and multinational pharmaceutical firms involved in the wholesale patenting and monopolization of plant, animal, and even human "life-forms." Moreover, the profit-spurred acceleration of genetic experiments has made health, safety, ecological integrity, and biological diversity mere secondary considerations, and the routine, unregulated production and utilization of human genetic information has added yet a new means to the arsenal of social discrimination. The long-range eugenic implications of this knowledge and technology, viewed in the light of twentieth-century experience, are neither obscure nor unimaginable.[9]

In all of these areas, the other-worldly preoccupations of latter-day spiritual men have produced unprecedentedly powerful means toward worldly ends. The technologists' expectation of restored dominion has been indulged by their patrons in the interest of enlarged domination. Yet, for the most part, lost in their essentially religious reveries, the technologists themselves have been blind to, or at least have displayed a blithe disregard for, the harmful ends toward which their work has been directed.

When people wonder why the new technologies so rarely seem adequately to meet their human and social needs, they assume it is because of the greed and lust for power that motivate those who design and deploy them. Certainly, this has much to do with it. But it is not the whole of the story. On a deeper cultural level, these technologies have not met basic human needs because, at bottom, they have never really been about meeting them. They have been aimed rather at the

loftier goal of transcending such mortal concerns altogether. In such an ideological context, inspired more by prophets than by profits, the needs neither of mortals nor of the earth they inhabit are of any enduring consequence. And it is here that the religion of technology can rightly be considered a menace. (Lynn White, for example, long ago identified the ideological roots of the ecological crisis in "the Christian dogma of man's transcendence of, and rightful mastery over, nature"; more recently, the ecologist Philip Regal has likewise traced current justifications of unregulated bioengineering to their source in late-medieval natural theology.)[10]

As we have seen, those given to such imaginings are in the vanguard of technological development, amply endowed and in every way encouraged to realize their escapist fantasies. Often displaying a pathological dissatisfaction with, and deprecation of, the human condition, they are taking flight from the world, pointing us away from the earth, the flesh, the familiar—"offering salvation by technical fix," in Mary Midgley's apt description—all the while making the world over to conform to their vision of perfection.[11]

But it is not the practitioners alone who are so moved. A thousand years in the making, the religion of technology has become the common enchantment, not only of the designers of technology but also of those caught up in, and undone by, their godly designs. The expectation of ultimate salvation through technology, whatever the immediate human and social costs, has become the unspoken orthodoxy, reinforced by a market-induced enthusiasm for novelty and sanctioned by a millenarian yearning for new beginnings. This popular faith, subliminally indulged and intensified by corporate, government, and media pitchmen, inspires an awed deference to the practitioners and their promises of deliverance while diverting attention from more urgent concerns. Thus, unrestrained technological development is allowed to proceed apace, without serious scrutiny or oversight—without reason. Pleas for some rationality, for reflection about pace and purpose, for sober assessment of costs and benefits—for evidence even of economic value, much less larger social gains—are dismissed as irrational. From within the faith, any and all criticism appears irrelevent, and irreverent.

But can we any longer afford to abide this system of blind belief? Ironically, the technological enterprise upon which we now ever more depend for the preservation and enlargement of our lives betrays a disdainful disregard for, indeed an impatience with, life itself. If dreams of technological escape from the burdens of mortality once translated into some relief of the human estate, the pursuit of technological transcendence has now perhaps outdistanced such earthly ends. If the religion of technology once fostered visions of social renovation, it also fueled fantasies of escaping society altogether. Today these bolder imaginings have gained sway, according to which, as one philosopher of technology recently observed, "everything which exists at present . . . is deemed disposable." The religion of technology, in the end, "rests on extravagant hopes which are only meaningful in the context of transcendent belief in a religious God, hopes for a total salvation which technology cannot fulfill. . . . By striving for the impossible, [we] run the risk of destroying the good life that is possible." Put simply, the technological pursuit of salvation has become a threat to our survival.[12]

The thousand-year convergence of technology and transcendence has thus outlived whatever historical usefulness it might once have had. Indeed, as our technological enterprise assumes ever more awesome proportions, it becomes all the more essential to decouple it from its religious foundation. "Transcendence is a wrong-headed concept," Cynthia Cockburn has argued. "It means escape from the earth-bound and the repetitive, climbing above the everyday. It means putting men on the moon before feeding and housing the world's poor. . . . The revolutionary step would be to bring men down to earth." But respite from our transcendent "faith in the religion of the machine," as Lewis Mumford long ago insisted, requires that we "alter the ideological basis of the whole system." Such an undertaking demands defiance of the divine pretensions of the few in the interest of securing the mortal necessities of the many, and presupposes that we disabuse ourselves of our inherited other-worldly propensities in order to embrace anew our one and only earthly existence.[13]