where, besides among these dissenting young people and their heirs of the next few generations, the radical discontent and innovation can be found that might transform this disoriented civilization of ours into something a human being can identify as home. They are the matrix in which an alternative, but still excessively fragile future is taking shape. Granted that alternative comes dressed in a garish motley, its costume borrowed from many and exotic sources—from depth psychiatry, from the mellowed remnants of left-wing ideology, from the oriental religions, from Romantic *Weltschmerz*, from anarchist social theory, from Dada and American Indian lore, and, I suppose, the perennial wisdom. Still it looks to me like all we have to hold against the final consolidation of a technocratic totalitarianism in which we shall find ourselves ingeniously adapted to an existence wholly estranged from everything that has ever made the life of man an interesting adventure.

If the resistance of the counter culture fails, I think there will be nothing in store for us but what anti-utopians like Huxley and Orwell have forecast—though I have no doubt that these dismal despotisms will be far more stable and effective than their prophets have foreseen. For they will be equipped with techniques of inner-manipulation as unobtrusively fine as gossamer. Above all, the capacity of our emerging technocratic paradise to denature the imagination by appropriating to itself the whole meaning of Reason, Reality, Progress, and Knowledge will render it impossible for men to give any name to their bothersomely unfulfilled potentialities but that of madness. And for such madness, humanitarian therapies will be generously provided.

There may be many readers for whom the issues raised in this book will seem meaningless as gibberish. It is not easy to question the thoroughly sensible, thoroughly well-intentioned, but nevertheless reductive humanism with which

between technocrats or between factions who subscribe to technocratic values from first to last. The angry debates of conservative and liberal, radical and reactionary touch everything except the technocracy, because the technocracy is not generally perceived as a political phenomenon in our advanced industrial societies. It holds the place, rather, of a grand cultural imperative which is beyond question, beyond discussion.

When any system of politics devours the surrounding culture, we have totalitarianism, the attempt to bring the whole of life under authoritarian control. We are bitterly familiar with totalitarian politics in the form of brutal regimes which achieve their integration by bludgeon and bayonet. But in the case of the technocracy, totalitarianism is perfected because its techniques become progressively more subliminal. The distinctive feature of the regime of experts lies in the fact that, while possessing ample power to coerce, it prefers to charm conformity from us by exploiting our deep-seated commitment to the scientific world-view and by manipulating the securities and creature comforts of the industrial affluence which science has given us.

So subtle and so well rationalized have the arts of technocratic domination become in our advanced industrial societies that even those in the state and/or corporate structure who dominate our lives must find it impossible to conceive of themselves as the agents of a totalitarian control. Rather, they easily see themselves as the conscientious managers of a munificent social system which is, by the very fact of its broadcast affluence, incompatible with any form of exploitation. At worst, the system may contain some distributive inefficiencies. But these are bound to be repaired . . . in time. And no doubt they will be. Those who gamble that either capitalism or collectivism is, by its very nature, incompatible with a totally efficient technocracy, one which will finally eliminate

is true. As paradoxical as it may sound, the real threat to democracy comes, not from overmanagement, but from undermanagement. To undermanage reality is not to keep free. It is simply to let some force other than reason shape reality. That force may be unbridled emotion; it may be greed; it may be aggressiveness; it may be hatred; it may be ignorance; it may be inertia; it may be anything other than reason. But whatever it is, if it is not reason that rules man, then man falls short of his potential.

Vital decision-making, particularly in policy matters, must remain at the top. This is partly, though not completely, what the top is for. But rational decision-making depends on having a full range of rational options from which to choose, and successful management organizes the enterprise so that process can best take place. It is a mechanism whereby free men can most efficiently exercise their reason, initiative, creativity and personal responsibility. The adventurous and immensely satisfying task of an efficient organization is to formulate and analyze these options.[5]

Such statements, uttered by obviously competent, obviously enlightened leadership, make abundantly clear the prime strategy of the technocracy. It is to level life down to a standard of so-called living that technical expertise can cope with —and then, on that false and exclusive basis, to claim an intimidating omnicompetence over us by its monopoly of the experts. Such is the politics of our mature industrial societies,

[5] From Robert S. McNamara's recent book *The Essence of Security* (New York: Harper & Row, 1968) pp. 109–10. In the present generation, it is second- and third-level figures like McNamara who are apt to be the technocrats par excellence: the men who stand behind the official facade of leadership and who continue their work despite all superficial changes of government. McNamara's career is almost a paradigm of our new elitist managerialism: from head of Ford to head of the Defense Department to head of the World Bank. The final step will surely be the presidency of one of our larger universities or foundations. Clearly it no longer matters *what* a manager manages; it is all a matter of juggling vast magnitudes of things: money, missiles, students . . .

revolution has run its course in America. At which point the new black middle class will produce its own ungrateful young, who, as the heirs of everything their parents thought worth struggling for, will begin, like their white counterparts, to fight their way free of technocratic entrapment.

But beyond the problems raised by such social maneuvering, there lies an even more critical project: that of defining the ethical dignity of a cultural movement which takes radical issue with the scientific world view. The project is vitally important because there must be a reply to the challenge raised by the many uneasy intellectuals who fear that the counter culture arrives, not trailing clouds of glory, but bearing the mark of the beast. No sooner does one speak of liberating the non-intellective powers of the personality than, for many, a prospect of the starkest character arises: a vision of rampant, antinomian mania, which in the name of permissiveness threatens to plunge us into a dark and savage age. It is not without justification that concerned men should then hasten to mount the barricades in the defense of reason. Here, for example, is Philip Toynbee reminding us of "the old nihilistic yearning for madness, despair, and total denial" which was a mainstay of fascist ideology:

> . . . it is important to remember that Himmler was the truest nihilist of them all. It is important to remember that the most effective guardians against a resurgence of fascism in Europe are hope, decency, and rationality. This should be brought home, if it can be, to all those young people who consider that they belong to the Left but who love to play with nihilistic toys in art and argument. The ultimate fascist cry is Millan Astray's "Viva, viva la Muerte!"[18]

[18] Toynbee reviewing some recent studies of fascism in *The Observer* (London), July 28, 1968. In a similar vein, the British playwright Arnold Wesker has referred to the hippies as "pretty little fascists" and the social critic Henry Anderson has renamed the Sex-

reason invokes the example of great humanitarian personalities: Socrates, Montaigne, Voltaire, Galileo, John Stuart Mill . . . and all the many more who pled for the dignity of intellect against the savagery and superstition of their day.

But if we think again, we see at once that the same line of argument is open to those who opt for the life of feeling. Can they not match every hot-blooded brutality in human history with an example of cold-blooded criminality just as dire? If thirteenth-century Christendom had been dominated by the impulsive compassion of the simple-minded St. Francis, rather than by the frigid intellectuality of Innocent III, would there ever have been an Inquisition? By what manner of men was St. Joan, an illiterate visionary, martyred if not by heartless schemers whose intellectual capacities can scarcely be questioned? How many men of surpassing rationality can equal the record that the Quakers, guided by moral passion and the Inner Light, have compiled in resisting war, slavery, and social injustice?

When we turn to the case most frequently cited as evidence of the dangers of unrestrained passion—that of the Nazis—I think the same sort of argument can be used. Perhaps the Nazis did assume the mantle of a vulgarized Romanticism. But if we ask with what manner of men its cadres were staffed, we get a rather different picture of the regime. Without utterly dispassionate, utterly rational technicians and administrative automatons like Adolf Eichmann, it is impossible to imagine the Nazi state lasting a year. Those who blame Nazism on the corrupting influence of the Romantic movement surely mistake the propagandistic surface for the underlying political reality. The New Order was hardly the creature of moon-struck poets and Dionysian revelers. It was, instead, as thorough a technocracy as any that survives today: a carefully wrought bureaucratic-military apparatus based on relentless regimentation and precisely managed ter-

of nineteenth-century realpolitik that speaks too often through Marx, mixed with the grizzly callousness of social Darwinism and a scurrilous, positivistic atheism.

This, then, is ideology written in the key of the prevailing reality principle: ideology that collaborates in diminishing consciousness, that weighs down and seeks to reconcile us to an existence without dreams, without fantasies. To immerse oneself in the old ideologies—with the notable exception of that anarchist tradition which flows from such figures as Kropotkin, Tolstoy, Thoreau—is to find oneself stifling in the stone and steel environment of unquestionable technological necessity. It is a literature of seriousness and grim resolve, tightly bounded by practicality, class discipline, the statistics of injustice, and the lust for retribution. To speak of the ecstasies of life in such a somber environment is to risk folly. Here where all men trudge, none may dance. Dancing is . . . for later.

If the demise of the old ideologies begins anywhere, it begins with this delaying gesture. For to postpone until "later" consideration of the humanly essential in the name of "being realistic" is to practice the kind of deadly practicality which now stands our civilization in peril of annihilation. It is to deliver us into the hands of dehumanized commissars, managers, and operations analysts—all of whom are professional experts at postponing the essential. These are the practitioners of what C. Wright Mills called "crackpot realism." The artist who clings to his impossible vision at least preserves that much of heaven among us; the mad realist who turns from that vision for the sake of another "practical" measure only takes us one step further into the hell of our alienation.

It is understandable that the old ideologies should have been characterized by the diminished conception of realism that stems from anger and desperation. The horizon of the time encompassed neither affluence nor the insights of depth

psychology. Marx, as Norman Brown observes, "is not free from the tacit assumption . . . that the concrete human needs and drives sustaining economic activity are just what they appear to be and are fully in consciousness." The essential insanity of technological "progress" and its concomitant disciplines—whether under capitalist or collective auspices—only stands revealed in the light of misused abundance . . . unless, of course, one has the rare moral vision Tolstoy displays in a tale like "How Much Land Does a Man Need?" But there was little of the Tolstoyan sensibility in Marx—the more's the pity for the course that radical ideology was to run in our time.

Now, however, the madness of this fake progress we pursue thrusts itself upon us irresistibly each time men turn away from the task of transforming this lovely earth into the garden of delights it might be, devoting themselves instead to the black arts of mutual torment. Happiness, as Freud bleakly and rightly observed, *still* has no cultural value. The "happiness" most of us settle for is whatever transient relief or exuberant diversion we can sandwich in between atrocities: "the pause that refreshes" before the next calamity.

> . . . intensified progress seems to be bound up with intensified unfreedom [Marcuse observes, isolating the great, central paradox of our time]. Concentration camps, mass extermination, world wars, and atom bombs are no 'relapse into barbarism,' but the unrepressed implementation of the achievements of modern science, technology, and domination. And the most effective subjugation and destruction of man by man takes place at the height of civilization, when the material and intellectual attainments of mankind seem to allow the creation of a truly free world. (p. 4.)

In the situation, it is easy enough for the older ideologies to continue supplying us with villains. Recrimination has always been one of the central functions of the ideologue—the

Technology exerts an influence upon society *in its own right* and independent of the social form under which it is organized.

For Marx, technology was always a neutral factor: a fluid that filled the social vessel and assumed its shape. Technology could be either exploitive or humanitarian, depending wholly upon the class interest it served. But Marcuse, surveying the practice of both the Western and Soviet technocracies, concludes somberly that "the two antagonistic social systems . . . join in the general trend of technical progress." In both cases, we have "the total mobilization of the individuals for the requirements of competitive total industrialization."[18] The infernal machine has its way with all ideologies.

Now, Marcuse is undoubtedly right in identifying denatured permissiveness as one of the key strategies of contemporary social control—and it is a pressure to which the dissenting young have become especially sensitive. What is not clear is *why* these dismal forms of domination should continue when the potentiality of liberating affluence is so undeniably apparent. If domination was born *solely* of scarcity, then it should vanish with the advent of affluence —for in our time special privilege is obviously not the prerequisite of subsistence . . . or even of a standard of life considerably above subsistence. But domination *does* continue. And it does not seem that Marcuse offers any better explanation of the fact than to suggest that "mental development lags behind the real development, or . . . retards the real development, denies its potentialities in the name of the past." (p. 31.) So we have a kind of psycho-social inertia in operation which keeps us living in a discipline appropriate to scarcity even while abundance is available.

But inertia is a rather feeble explanation for behavior, especially within a Freudian framework, where everything

[18] Herbert Marcuse, *Soviet Marxism: A Critical Analysis* (London: Routledge & Kegan Paul, 1958), p. 259.

stone a swift kick. It is as if Freud had never discovered the existence of a "psychic reality" within which the dreams, the lies, the fantasies of his patients became more meaningful, indeed more "real," than their verifiable memories. As Marcuse uses the term here, no official decision maker, no member of the local Kiwanis Club would take issue with him.

The implication of Marcuse's adamant secularism is clear enough. He is telling us that the politics of the world *is* precisely what everyman has always consciously taken it to be: the struggle against injustice, against oppression, against privilege . . . as old as the plea of the Eloquent Egyptian Peasant, as old as Thucydides' Melian Dialogue. What is the meaning, then, of the unconscious? In *Eros and Civilization*, Marcuse guides us through a "philosophical inquiry into Freud"; but when all is said and done, this venture seems to come down to little more than filling in the psychological totals in the same old political leger. So we learn that injustice is mental, as well as physical, cruelty. To be sure, Freud opened up the realm of dreams, of myth, of the deep life instincts. But this apparently is only the exotic psychoanalytical version of what Spartacus knew about reality long ago: that "the real fight" is "the political fight." As Spartacus saw the world, as Machiavelli saw it, so it *is*: power against power, the strong against the weak. Freud is no more than a footnote attached to the business-as-usual of politics. Which is: to choose sides, draw the line, and fight again . . . and again . . . for the obvious causes, in the obvious ways. "Surplus repression" would seem to become a mere psychoanalytical transcription for social injustice, and "libidinal reason," a shorthand term for social conscience with a mental health program.[28]

[28] Marcuse's criticism of Brown in the *Commentary* article comes very close to being the doctrinaire Marxist reading of Freud. Cf.

adopted, it was the wealth of hyperbolic eroticism the religion brought with it rather indiscriminately from the *Kama-sutra* and the tantric tradition. Again, this looks very much like postwar middle-class permissiveness reaching out for a religious sanction, finding it, and making the most of it. As Alan Watts observed in a widely circulated critique of 1958, a great deal of "Beat Zen" was a "pretext for license . . . a simple rationalization." Kerouac's brand of modish Zen, Watts gently criticized, ". . . confuses 'anything goes' at the existential level with 'anything goes' at the artistic and social levels." And such a conception of Zen runs the risk of becoming the banner of

> the cool, fake-intellectual hipster searching for kicks, name-dropping bits of Zen and jazz jargon to justify disaffiliation from society which is in fact just ordinary, callous exploitation of other people. . . . Such types are, however, the shadow of a substance, the low-level caricature which always attends spiritual and cultural movements, carrying them to extremes which their authors never intended. To this extent beat Zen is sowing confusion in idealizing as art and life what is better kept to oneself as therapy.[7]

Even if Zen, as most of Ginsberg's generation have come to know and publicize it, has been flawed by crude simplifications, it must also be recognized that what the young have vulgarized in this way is a body of thought which, as formulated by men like Suzuki and Watts, embraces a radical critique of the conventional scientific conception of man and nature. If the young seized on Zen with shallow understanding, they grasped it with a healthy instinct. And grasping it, they bought the books, and attended the lectures, and

[7] Alan Watts, "Beat Zen, Square Zen, and Zen," in *This Is It, and Other Essays on Zen and Spiritual Experience* (New York: Collier Books, 1967).

matical terms like "parameters," "structures," "variables," "inputs and outputs," "correlations," "inventories," "maximizations," and "optimizations." The terminology derives from involuted statistical procedures and methodological mysteries to which only graduate education gives access. The more such language and numerology one packs into a document, the more "objective" the document becomes—which normally means the less morally abrasive to the sources that have subsidized the research or to any sources that might conceivably subsidize one's research at any time in the future. The vocabulary and the methodology mask the root ethical assumptions of policy or neatly transcribe them into a depersonalized rhetoric which provides a gloss of military or political necessity. To think and to talk in such terms becomes the sure sign of being a certified realist, a "hard research" man.

Thus to bomb more hell out of a tiny Asian country in one year than was bombed out of Europe in the whole Second World War becomes "escalation." Threatening to burn and blast to death several million civilians in an enemy country is called "deterrence." Turning a city into radioactive rubble is called "taking out" a city. A concentration camp (already a euphemism for a political prison) becomes a "strategic hamlet." A comparison of the slaughter on both sides in a war is called a "kill ratio." Totaling up the corpses is called a "body count." Running the blacks out of town is called "urban renewal." Discovering ingenious new ways to bilk the public is called "market research." Outflanking the discontent of employees is called "personnel management." Wherever possible, hideous realities are referred to by cryptic initials and formulalike phrases: ICBM, CBR, megadeaths, or "operation" this, "operation" that. On the other hand, one can be certain that where more colorful, emotive terms are used—"the war on poverty," "the war for the hearts and minds of men," "the race for space," "the New Frontier,"

Kennedy more accurately than any analysis of policy or program could. And, in any case, it is the sort of style one must expect a psychotherapist to bring to bear on public argument.

The significance of this "contextual method of argument," as the Gestaltists call it, is that it short-circuits a deal of intellectual banter that may be totally beside the point and at once personalizes the debate—though perhaps painfully. It is a mode of intellectuality which brings into play the non-intellective substructure of thought and action. Goodman explains the technique in this way:

> . . . a merely "scientific" refutation by adducing contrary evidence is pointless, for [the opponent] does not *experience* that evidence with its proper weight . . . Then the only useful method of argument is to bring into the picture the total context of the problem, including the conditions of experiencing it, the social milieu and the personal "defenses" of the observer. That is, to subject the opinion and his holding of it to a gestalt-analysis. . . . We are sensible that this is a development of the argument *ad hominem*, only much more offensive, for we not only call our opponent a rascal and therefore in error, but we also charitably assist him to mend his ways![9]

This is the principle underlying what one might well mistake in much of Goodman's debate and writing for a callous kind of one-upmanship—which is what the technique does indeed degenerate into when inexpert hands take it over. It is easy to see how appealing such a style would be to a generation that had grown dubious about the reliability of speech, and had already attuned itself to "hearing" the character hidden behind the inarticulate grunts and shrugs of a James Dean and Marlon Brando. It was also bound to strike home with the New Left students, given their wise sus-

[9] Perls, Hefferline, and Goodman, *Gestalt Therapy*, p. 243.

will pass into folly or even disaster. And yet, *what* a moment! Perhaps such moments are what life is all about.

It is out of this all-embracing conception of human nature that Goodman draws his communitarianism: not from the supposition that men are incarnate angels, but from the realization that only a social order built to the human scale permits the free play and variety out of which the unpredictable beauties of men emerge. But conversely (and here is the anarchist insight so frequently ignored) it is only a society possessing the elasticity of decentralized communities that can absorb the inevitable fallibilities of men. For where we have big systems run from the musclebound center, the blunders of the custodians will surely reverberate into total calamity. And *quis custodiet custodes?*

As Goodman has himself remarked, it is strange indeed that decentralist sentiments like these are usually rejected by the cautious as unthinkably "radical." The historical reference for his brand of anarchism harks back to the well-tested virtues of the neolithic village. "The 'conservatives,' on the other hand, want to stay with the oppressions of 1910 or perhaps Prince Metternich. It is only the anarchists who are really conservative, for they want to conserve sun and space, animal nature, primary community, experimenting inquiry."[15] So Goodman seeks, in his social criticism, the same end always: to scale down selectively our leviathan industrialism so that it can serve as handmaiden to the ethos of village or neighborhood.

It is Goodman's communitarianism which is, finally, his greatest and most directly appreciated contribution to contemporary youth culture. For the New Left he has functioned as the foremost theoretician of participative democracy, bringing back into lively discussion a tradition of anarchist thought that reaches back through Prince Kropotkin to Robert Owen.

[15] *Drawing the Line*, p. 16.

replaced in all areas by the machine, not because the machine can do things "better," but rather because all things have been reduced to what the machine is capable of doing.

It is unlikely that any single scientist, behavioral scientist, or technician would plead guilty to so sweeping a charge. None of them, as individuals, are involved in so global a project. But Jacques Ellul observes the key point:

> . . . one important fact has escaped the notice of the technicians, the phenomenon of technical convergence. Our interest here is the convergence on man of a plurality, not of techniques, but of systems or complexes of techniques. . . . A plurality of them converge toward the human being, and each individual technician can assert in good faith that his technique leaves intact the integrity of its object. But the technician's opinion is of no importance, for the problem concerns not *his* technique, but the convergence of all techniques.[11]

There could be no better definition of the technocracy than to identify it as the center where, subtly, steadily, ingeniously, this convergence is brought into existence. Ellul, in his somber analysis, overlooks only one dismal possibility. The final convergence he predicts may not have to postpone its completion until the technocracy has acquired mechanisms and techniques that will replace the human being in all areas of our culture. Instead, we may only have to wait until our fellow humans have converted themselves into purely impersonal automatons capable of total objectivity in all their tasks. At that point, when the mechanistic imperative has been successfullly internalized as the prevailing life style of our society, we shall find ourselves moving through a world of perfected bureaucrats, managers, operations analysts, and social engineers who will be indistinguishable from the

[11] Jacques Ellul, *The Technological Society*, p. 391.

—to think of the earth as a pit of snares and sorrows. Nature is that which must be taken unsentimentally in hand and made livable by feverish effort, ideally by replacing more and more of it with man-made substitutes. So then, perhaps someday we shall inhabit a totally plastic world, clinically immaculate and wholly predictable. To live in such a completely programmed environment becomes more and more our conception of rational order, of security. Concomitantly, our biologists begin to think even of the genetic process as a kind of "programming" (though, to be sure, a faulty one that can be improved upon in a multitude of ways). The object almost seems to bear out the ideas of Otto Rank's return-to-the-womb psychology, with our goal being a world-wide, lifelong plastic womb. The perversely anti-scientific poet e. e. cummings would seem to be exactly right:

> What does being born mean to mostpeople? Catastrophe unmitigated. Socialrevolution. The cultured aristocrat yanked out of his hyperexclusively utravoluptuous superpallazzo, and dumped into an incredibly vulgar detentioncamp swarming with every conceivable species of undesirable organism. Mostpeople fancy a guaranteed birthproof safetysuit of nondestructible selflessness. If mostpeople were to be born twice they'd improbably call it dying—[7]

As a culture, we have all but completely lost the eyes to see the world in any other way. In contrast to the hard-edged, distinct focus of the scientist's impersonal eye, which studies this or that piece of the environment in order to pry its secrets from it, the sensuous, global awareness of the shaman seems like that sort of peripheral vision which is in-

[7] e. e. cummings, *Poems 1923–1954* (New York: Harcourt, Brace, 1954), p. 331.

But one is reminded by such examples of the pathetic banker in T. S. Eliot's play *The Confidential Clerk*, who found greater rewards in his secret avocation as a potter than in his public position as a financier. Of necessity, however, his two worlds of ceramic art and high finance had to remain strictly compartmentalized; there was no basis on which they could interpenetrate. The world does not evaluate the talents of a financier by reference to his potting any more than one scientist evaluates another's work by reference to his artistic tastes. The expert's work must be judged on its purely objective merits; which means it must be cleansed of all personal eccentricities, no matter how delightful. That is what it means to be a specialist. A private passion for lyric poetry or the violin is no more than a quaint biographical detail in the career of an expert. When we are informed, as no doubt we shall be someday soon, that a clever young biologist has finally synthesized protoplasm in a test tube, we are not apt to suspend judgment on his achievement until we know how well developed his appreciation of Rilke is. The discovery will stand and the Nobel prize will accordingly be rewarded, though the man is the worst of philistines. And it would be news indeed to discover that the scientific and technical communities held any doubts that the worst of philistines could be a decently productive member of the guild and to see that doubt reflected in the curriculum through which the apprentices pass.

At best, the artistically inclined person within a predominantly scientific culture lives a schizoid existence, finding an out-of-the-way corner of his life in which to pursue some creative use of leisure time. In the technocratic society such a schizoid strategy is fast becoming standard practice. Men build careers and shape their worlds in their public roles as technicians and specialists. They keep their creative gestures to themselves as private and irrelevant pleasures. Such ges-

They teach us appreciative gestures, but avoid the white-hot experience of authentic vision that might transform our lives and, in so doing, set us at warlike odds with the dominant culture. To achieve such a shattering transformation of the personality *one* poem by Blake, *one* canvas by Rembrandt, *one* Buddhist sutra might be enough . . . were we but opened to the power of the word, the image, the presence before us. When such an upheaval of the personality happens, our dissenting young show us the result. They drop out! The multiversity loses them . . . the society loses them. They go over to the counter culture. And then the concerned parents, the administrators, the technocrats wag their heads dolefully and ask, "Where have we failed our youth?" Meaning: "How have we made the mistake of producing children who take with such desperate seriousness what was only intended as a little cultural savvy?"

It would be one of the bleakest errors we could commit to believe that occasional private excursions into some surviving remnant of the magical vision of life—something in the nature of a psychic holiday from the dominant mode of consciousness—can be sufficient to achieve a kind of suave cultural synthesis combining the best of both worlds. Such dilettantism would be a typically sleazy technocratic solution to the problem posed by our unfulfilled psychic needs; but it would be a deception from start to finish. We have either known the magical powers of the personality or we have not. And if we have felt them move within us, then we shall have no choice in the matter but to liberate them and live by the reality they illuminate. One does not free such forces on a part-time basis any more than one falls madly in love or repents of sin on a part-time basis. To suggest that there may be some halfway house between the magical and the objective consciousness in which our culture can reside is quite simply to confess that one does not know what it is to see with the

eyes of fire. In which case, we shall never achieve the personal, transactive relationship with the reality that envelops us which is the essence of the magical world view. Accordingly, whatever our degree of intellectual sophistication, we shall as a culture continue to deal with our natural environment as lovingly, as reverently as a butcher deals with the carcass of a dead beast.

* * * *

Yet, if we have lost touch with the shamanistic world view by which men have lived since the paleolithic beginnings of human culture, there is one sense in which magic has not lost its power over us with the progress of civilization. It is not only the dumfounded populations of so-called underdeveloped societies that perceive and yield to the white man's science and technology as a form of superior magic. The same is true of the white man's own society—though we, as enlightened folk, have learned to take the magic for granted and to verbalize various non-supernatural explanations for its activity. True enough: science possesses theory, methodology, epistemology to support its discoveries and inventions. But, alas! most of us have no better understanding of these things than the bewildered savages of the jungle. Even if we have acquired the skill to manipulate vacuum tubes and electrical circuits and balky carburetors, few of us could articulate one commendable sentence about the basic principles of electricity or internal combustion, let alone jet propulsion, nuclear energy, deoxyribonucleic acid, or even statistical sampling, which is supposedly the key to understanding our own collective opinions these days.

It is remarkable how nonchalantly we carry off our gross ignorance of the technical expertise our very lives depend upon. We live off the surface of our culture and pretend we

pect that many scientists and technicians would find nothing whatever to object to in the remarks and projects referred to here, but would view them as perfectly legitimate, if not extremely interesting, lines of research to which only a perversely anti-scientific mentality would object.

(2) Further, I would contend that the material presented here typifies what the technocracy is most eager to reward and support. These are the kinds of projects and the kinds of men we can expect to see becoming ever more prominent as the technocratic society consolidates its power. Whatever enlightening and beneficial "spin-off" the universal research explosion of our time produces, the major interest of those who lavishly finance that research will continue to be in weapons, in techniques of social control, in commercial gadgetry, in market manipulation, and in the subversion of democratic processes by way of information monopoly and engineered consensus. What the technocracy requires, therefore, is men of unquestioning objectivity who can apply themselves to any assignment and deliver the goods, with few qualms regarding the ultimate application of their work.

As time goes on, it may well be that gifted and sensitive talents will find it more and more difficult to serve the technocratic system. But such conscience-stricken types—the potential Norbert Wieners and Otto Hahns and Leo Szilards—will be easily replaced by acquiescent routineers who will do what is expected of them, who will play dumb as they continue grinding out the research, and who will be able to convince themselves that the high status they receive is, in truth, the just and happy reward their idealistic quest for knowledge deserves. One would think that a man who had been hired by pyromaniacs to perfect better matches would begin to sense, at some point, how much of a culprit he was. But fame and cash can do wonders to bolster one's sense of innocence.

Not long before his death, the greatest scientific mind since Newton confessed to the world that, if he had to choose over again, he would rather have been a good shoemaker. I

incredulity and indignation in many quarters. Such response in part reflects the extreme view of the nineteenth-century romantic tradition that regards music as direct communication of emotion from composer to listener—"from heart to heart," as Wagner said. In deference to this view it must be conceded that we do not *yet* understand the subjective aspect of musical communication well enough to study it in precise terms. . . . On the other hand, music does have its objective side. The information encoded there relates to such quantitative entities as pitch and time, and is therefore accessible to rational and ultimately mathematical analysis. . . . it is possible, at least in theory, to construct tables of probabilities describing a musical style, such as Baroque, Classical or Romantic, and perhaps even the style of an individual composer. Given such tables, one could then reverse the process and compose music in a given style. (Lejaren A. Hiller, Jr., in *Scientific American*, December 1959. Italics added.)

The most ominous aspect of such statements is the ever-present "yet" that appears in them. To offer another example: "No technology as *yet* promises to duplicate human creativity, especially in the artistic sense, if only because we do not *yet* understand the conditions and functioning of creativity. (This is not to deny that computers can be useful aids to creative activity.)" (Emmanuel G. Mesthene, *How Technology Will Shape the Future*, Harvard University Program on Technology and Society, Reprint Number 5, pp. 14–15.) The presumption involved in such statements is almost comic. For the man who thinks that creativity might *yet* become a technology is the man who stands no chance of ever understanding what creativity is. But we can be sure the technicians will eventually find us a bad mechanized substitute and persuade themselves that it is the real thing.

(6) The literature of our society dealing with imprisonment and capital punishment is extensive, including contributions by Tolstoy, Camus, Dostoyevsky, Sartre, and Koestler. Since, however, these men offer us only imaginative fiction, their work is obviously of little scientific value. What follows is