

THE LOST JOY OF LIFE

DRAWN, as he explained, by "some inner need seeking realignment with simple and natural things: things like growing seeds, harvesting food, sleeping on the earth, sharing talk with a friend on a porch, listening to the wind in the trees," Ethan Hubbard, going on thirty-eight, sold his house and land in northern Vermont and took off with his dog and cameras in an old VW bus. This, it turned out, was the beginning of a long pilgrimage which took him to out-of-the-way places around the world. On the trip, he talked with people who soon became his friends, took lots of photographs, no doubt made some notes, and then, after visiting in Sri Lanka, returned to his family's farm in Connecticut in 1984. There he wrote a book about his travels—to eight rather wonderful places.

Wherever he went, he lived with the people, shared their work, and became, for a while, part of their lives. They gave him what he was looking for—the feelings, attitudes, and pleasures of rural and indigenous people. You see them in his photographs, and what you can't forget is how alive they seem. And some of them, especially of children, are beautiful. His book is *First Light* published in hardback by Chelsea Green Publishing Co., P.O. Box 283, Chelsea, Vermont 05038, at \$29.95. More than a hundred photos (black and white) are in the book, adding much to its appeal. What is the author like? he says he's a grown-up hippy, which means both sensible and free in mind. You get to like him as you read.

We'll tell a little more about this book, but first we should explain why our notice of it is in a lead article instead of under review. After enjoying *First Light* we were paging through one of the periodicals we receive—the March-April issue of *Resurgence*, published in England—and we came across a long book review by Brian Keeble, founder of Golgonoza Press and one of

the founding editors of *Temenos*, that seemed of considerable importance—for the review itself as well as the book he discusses, which is *Pandaemonium 1160-1886, The Coming of the Machine as seen by Contemporary Observers*. The author, Humphrey Jennings, called it the "imaginative history of the Industrial Revolution." Keeble says:

The means used for this presentation comprises a miscellany of some 372 extracts from novels, diaries, reports, poems, essays, from Milton to William Morris and Richard Jefferies. These extracts are meant to illustrate, as the sub-title of the book has it, "The Coming of the Machine Age as seen by contemporary observers." In a conversation shortly before his untimely death in 1950 Jennings is reported to have said that his choice of texts was entirely objective but that he found a theme emerging from the collection simultaneously—"that the coming of the Machine was destroying something in our life." . . . what does emerge from an overall reading of the book is a theme of unmistakable magnitude and importance for us today. . . . All the ingredients for the beleaguered and apathetic consumer society, the sense of alienation and defeat at the hands of uncontrollable events, are here in these extracts.

This book review by Brian Keeble seemed to throw a bright light on Ethan Hubbard's decision to go on his trip around the world, which is why we began by telling about his search and his experiences. The people he visited were all very much alive; they had something which is missing from the lives of most people involved in the processes of modern civilization and which many of them now increasingly *feel* but are unable to explain. Now, with such books coming out, we are beginning to feel the onset of an actual grasp of contemporary history, which takes the form of a diagnosis rather than the proud chronicles of a few years ago. Dozens of good books are now bringing into the foreground of awareness a variety of explanations of what is wrong, and what we must do in order to have reasonably better

lives. First of all, we must begin to think more clearly of what the values of a good life are, how far we have left them behind in the furious and increasingly discouraging "rat race," and to decide how and where to make new beginnings.

The facts are now before us. Machines may make us comfortable, but they have not improved our lives. And with all the money aspects of "modern progress" to which for generations editorial writers have paid respect and praise, and conventional fathers proudly told their conventional children about, we have not been made happy by our changed circumstances. Nor are we in any way better human beings. As Wendell Berry put it recently, "As a people we are selfish, greedy, dependent, negligent of our duties to our land and to each other."

We are having to admit to ourselves that the gospel of progress, with some few exceptions, has been a gigantic self-deception participated in by an entire civilization—a civilization now having to consider how to turn itself around. As this conviction grows, as the admissions of past error become vociferous, there will be dozens of remedies proposed, including useless half-measures and fancy technological fixes as well as some remarkably sound advice. Doubtless what is best to do would be to take the advice of Carl Popper and to apply as well as we can what he calls piecemeal social engineering, since we don't know enough to try anything else, and we can't afford any irreversible moves.

Brian Keeble is equal to the task of describing what we are now funding out about ourselves. Speaking of the extracts in *Pandaemonium*, he says:

Their theme is nothing less than the gradual unfolding of the post-Renaissance materialistic philosophy of man and nature as it unfolds and becomes tangible in its application to nearly every detail of life in Britain over the last three and a half centuries. If the machine is the antagonist in this drama certainly the victim is the soul of man, for here it is ranged against the remorseless onslaught of a reductionist and impoverishing ethos that is set on

destroying the soul as an organ of truth, reality and being.

Given that this is the essential drama being played in the historic event we name the Industrial Revolution, then a proper understanding of the implication of the action, a grasp of its real import can only be had from "above" the minutiae of the events themselves. For this drama is a spiritual drama with the impetus for the action coming from a metaphysical source beyond the flux of time, the play of events, and the particularity of historic circumstances. To recognize some insufficiency in the presentation is no more than to acknowledge that it takes a mind of the qualities and strength of a Blake, or a Coleridge, or a Ruskin to disentangle the dramatic narrative and discern the nature of its outcome. And that is why these authors stand out here with something of a prophetic eminence. They knew the depth and extent to which the unfolding events were the outward shadows of an interior struggle of the soul to prevent its total occlusion. Indeed, it was the heroic struggle conducted by these and a few others, going against the grain of events, as it were, that makes it possible for us to envisage how it is in the nature of machine culture—left to develop freely and according to the logic inherent in its own possibilities—to require ultimately the abolition of man.

One thinks easily of confirmations of this analysis by writers of our own time. For example, Ortega, writing in *Mission of the University* (1944), distinguishes between science (which has a machine philosophy) and culture, which is our understanding of life.

Science is not something by which we live. If the physicist had to live by the ideas of his science, you may rest assured that he would not be so finicky as to wait for some other investigator to complete his research a century or so later. . . . The internal conduct of science is not a vital concern; that of culture is. Science is indifferent to the exigencies of our life, and follows its own necessities. Accordingly, science grows constantly more diversified and specialized without limit, and is never completed.

Then Wendell Berry, in a recent publication, shows the reduction of human freedom to make decisions by the adoption of means or tools which are really no longer tools whose use we control, but coercive mechanical systems which define our

ends for us. A society almost wholly in the hands of its machines has very little freedom to choose, and to claim that we are still able to make significant decisions becomes ridiculous. As Berry says:

The absurdity of the argument lies in a little-noted law of the nature of technology: that, past a certain power and scale, we may choose the means but not the ends. We may choose nuclear weaponry as a form of defense, but that is the last of our "free choices" with regard to nuclear weaponry. By that choice we largely abandon ourselves to terms and results dictated by the nature of nuclear weapons. To take up weapons has, of course, always been a limiting choice, but never before has the choice been made by so few with such fatal implications for so many and so much. Once we have chosen to rely on such weapons, the only free choice we have left is to change our minds; to choose *not* to rely on them. "Good" or "humane" choices short of that choice involve a logic that is merely pitiful.

Speaking of the collection of quotations assembled by Jennings in *Pandaemonium*, Brian Keeble says:

As so many of these passages make plain, over and above the obvious crudity, exploitation and repression of the machine age, there was a feeling of irrevocable loss, an underlying sense that the organic thread as between the quality of the workman and the nature of his work had snapped. For the Industrial Revolution witnessed a change of the most fundamental order in the sphere of human action in which the primacy of being over doing was inverted. The subtle correspondence and interaction on several planes of being by which, hitherto, a man might show in his work what he is *essentially*—not accidentally or circumstantially—was eroded and replaced by a mechanical technique of production that took no account of man's need to work in an environment related to his final end as a spiritual being. The "luddite mentality" is not simply and crudely a blind opposition to progress. It is the instinctive and maybe brutally inarticulate response to the encroachment of an inner impoverishment. That is why, periodically, there is a crafts revival. That is why the question posed and the challenge answered by hand facture remain with us.

Quite evidently, for Keeble, *Pandaemonium* is a fascinating collection of texts which get into the very grain of the onset of industrialism,

recognized as a blight by poets and philosophers while welcomed with cheers as a great liberating force by the champions of material progress. But for the disenchanted reader of our time, *Pandaemonium*, judging by the use made of it by Keeble, is a course in authentic history, written by those who were never glamorized by the illusions produced by the achievements of the machine. (The editors of the volume, Mary Lou Jennings and Charles Madge, put into readable form a difficult manuscript and the book has been published in England by Andre Deutsch at £12.95.) Inevitably, one recalls Carlyle's essay, "Signs of the Times," in the *Edinburgh Review* (1829), which has ample attention from Leo Marx in *The Machine in the Garden* (1964). For Carlyle, "machine" had two meanings, the effect of mechanical inventions on how we live our lives, and then, most important to him, its effects on our minds. Of the practical effect of the advent of technology, he wrote:

On every hand, the living artisan is driven from his workshop, to make room for a speedier, inanimate one. The shuttle drops from the fingers of the weaver and falls into iron fingers that ply it faster. . . . Men have crossed oceans by steam; the Birmingham Fire-king has visited the fabulous East. . . . There is no end to machinery. Even the horse is stripped of his harness, and finds a fleet fire-horse yoked in his stead. . . . For all earthly, and for some unearthly purposes, we have machines and mechanical furtherances; for mincing our cabbages; for casting us into smooth highway; nothing can resist us. We war with rude Nature; and, by our resistless engines, always come off victorious, and loaded with spoils.

After noting that machinery increases the distance between the rich and the poor, he turns to the "inward" sense of the word. Leo Marx summarizes:

What concerns him is the way the "mechanical genius . . . has diffused itself into quite other provinces. Not the external and physical alone is now managed by machinery, but the internal and spiritual also." Here "machinery" stands for a principle, or perspective, or system of value which Carlyle traces through every department of thought and expression: music, art, literature, science, religion, philosophy, and politics. In each category he detects the same

tendency: an excessive emphasis upon means as against ends, a preoccupation with the external arrangements of human affairs as against their inner meaning and consequences. Although he is using the image of the machine metaphorically, he does not lose control of the distinction between fact and metaphor. In discussing the functions of government, for example, he admits that they include much that is essentially routine or mechanical. "We term it indeed, in ordinary language, the Machine of Society, and talk of it as the grand working wheel from which all private machines must derive, or to which they must adapt, their movements." In this context, Carlyle recognizes, machine is a figure of speech, yet the figure seems to contain a prophetic truth.

"Considered merely as a metaphor, all this is well enough; but here, as in so many other cases, the 'foam hardens itself into a shell,' and the shadow we have wantonly evoked stands terrible before us, and will not depart at our bidding."

Carlyle largely blamed John Locke for this way of thinking, since Locke maintained that the human being is a creature of circumstance, passively reacting to his environment. Again, Leo Marx summarizes:

"By arguing on the 'force of circumstances,' he says, 'we have argued away all force from ourselves; and stand lashed together, uniform in dress and movement, like the rowers of some boundless galley.' In its transactions with the world outside, a mind so conceived responds like one clogged wheel turned by another. Used in this way the image of the machine connotes loss of inner freedom even as it provides outward power. "Practically considered," says Carlyle, "our creed is Fatalism; and, free in hand and foot, we are shackled magnetic sleep. We remove mountains, and make seas our in heart and soul with far straiter than feudal chains."

Yet Carlyle, and few of the critics of the machine age, are foes to progress. He wanted balance in human life. Well aware of the genuine advantages of some of the uses of machines, he rejected only the exaggeration of their importance. Had he been writing today, he would doubtless be quoting from *The Technological Society* Jacques Ellul's crucial distinction between a tool and a machine: the tool amplifies the power of the human user, while the machine is part of a system which he tends, submitting to all its necessities.

For us, Carlyle was conceptually up-to-date, lacking only in a modern vocabulary, which is no great loss.

Brian Keeble has a glorious time with the selections in the book he is reviewing, quoting one after another for several pages, and adding pertinent asides of his own, very much to the point. He learns, for example, that in 1814 the *London Times* was being printed at 1100 sheets an hour.

The result has all the remorseless inevitability of an inhuman logic and is announced not without a degree of pride at the achievement: henceforth, the worker was to be nothing more than a sentient part of the machine, an "unconscious agent in its operation." Soon he was not wanted even for that! In the age of the microchip, we are familiar with the robot, mass-unemployment, the "leisure industry." It was inevitable, and part of the system, that the worker would soon be "surplus to requirements" whenever he was not actually engaged in the business of consuming what the very same system produces in mechanical abundance. Thus work is gradually but inexorably emptied of all hope of spiritual reward. No more is it the case that "to labour is to pray." Work no more has its meditative core, whether in silence or in the many dances and songs, for instance, with which the worker was once accustomed to intertwine his or her daily labour.

We are given a glimpse of this in an extract from Thomas Pennant's *Tour in Scotland, and Voyage to the Hebrides* of 1772. Here, that subtle bond between the outward work and the inward being of the worker is still, just, and vital. After describing a group of twelve or fourteen women waulking cloth at their feet and hands, how their rhythmic working and singing rises to an almost demoniacal pitch, he comments: "They sing in the same manner when they are cutting down the corn, when thirty or forty join in the chorus." . . . What states of being were possessed in this manner in which the worker rises to a pitch that places him above and beyond the material occasion of his labour to catch some glimpse of the interconnectedness of worlds so that the worker inhabits a realm where the heroes and Gods of myth and folklore are his natural companions. In all

traditions the skill and calling of the craftsman—the primordial worker—is divinely appointed. His task, having its signature from the highest source, is nothing less than to fashion his needs in this world after the model of the Gods fashioning of the cosmos itself.

We, on the other hand, have the transistor radio to distract us from the boredom of a world we cannot face now that we are released for "higher things." . . . Now that we have more tractors than labourers on our farms, now that we have eroded soils of monoculture and our food is contaminated with the chemicals of artificial fertilizers, we could do worse than learn from the ancient organic wisdom; to see the harmony and sufficiency of cyclic renewal replace the progressive surpluses of expansionist productivity.

The singing of the women described by Pennant was either in Scotland or the Hebrides, and this recalls the fact that Ethan Hubbard began his overseas wanderings by going to the Outer Hebrides where he visited the Gaelic-speaking people on the isle of South Uist. There, with his backpack, he slept in barns, was well fed by everyone, and he worked in the fields with the men and played hide-and-seek with the children. There are still unspoiled places in the world, and Hubbard, to satisfy a deep longing, sought them out. The children seem all beautiful, joyous, and extremely bright. They are of course poor, but it doesn't matter so long as they stay home, and why should they leave such wonderful places—they still sing, too.

REVIEW

THE EXPERIENCE OF DYING

WHAT is death? Is there anything that goes on after the body fails and submits to the process of disintegration? We have had no answers to these questions in modern times save the comment of biologists that when the body dies that is the end of us—we, they say, are our bodies and nothing else—a conclusion natural enough to biologists whose studies are limited to bodily functions. The claims of ancient religions sometimes include elaborate doctrines concerning the states entered by the soul after death but these are commonly regarded by scientific minds as mythological inventions devised by pre-scientific people and given details by a priestcraft that found such teachings to their practical advantage.

But one may ask: Are there forms of human experience which may throw another light on the passing of the body? And if so, should we give attention to possibilities so suggested by what we now call subjective experience? Lots of queries grow out of this question, first of all the demand by the psychologist, A. H. Maslow, that students of the mind should regard subjective experience, not as something beyond the scope of scientific inquiry, but as part, a very large part, of the reality of human life, to be studied with the same attentiveness that scientists give to the objective, physical world. Maslow's view, we should note, resulted in what he regarded as a psychology of health, and set going a new way of looking at the human being used in various ways by those who now call themselves humanistic psychologists. Another branch of new psychology was launched in the 1930s by William McDougall at Duke University, his work being taken up after his death by J. B. Rhine and his associates at Duke, who devised experiments in order to demonstrate the reality of certain psychical powers in human beings—typified by thought-transference, clairvoyance, and clairaudience, now widely recognized although making but slow headway among scientists. There was no place in the

conventional scientific world-view for such powers. But today, with the world-view changing for a variety of reasons, such latent human capacities are beginning to seem natural to a vast number of people, and an extensive literature on the subject has developed—see, for example the writings of Willis Harman of the Institute of Noetic Sciences.

Then, unexpectedly, another branch of inquiry opened up, called to the attention of the public by Elisabeth Kübler-Ross, and publicized in a book, *Life after Life*, by Raymond Moody. Their subject has been named the "near-death experience." In short, the book is made up of the reports of people who seem to have gone through the initial processes of death, pronounced clinically dead by a doctor, and then, after an interval, revived. The recollections of these people, it was realized, after a number of them were collected, were remarkably similar, so that great public interest was aroused. Then, in 1980, Kenneth Ring, a psychologist who teaches at the University of Connecticut, interviewed intensively about a hundred such subjects and recorded the results in his book, *Life at Death*, calling it "A Scientific Investigation." Dr. Ring said in his preface:

My aim in conducting these interviews was to find out what people experience when they are on the verge of apparent imminent death. What they told me is, in a word, fascinating—as I think the material presented here will amply demonstrate—and for two quite distinct reasons. One has to do with the intrinsic content of these experiences themselves: No one who reads of them can come away without having been profoundly disturbed—emotionally, intellectually and spiritually—by the features they contain. The other is, if anything, even more significant: Most near-death experiences seem to unfold according to a single *pattern*, almost as though the prospect of death serves to release a stored, common "program of feelings, perceptions, and experiences.

Ring takes from Moody's book, *Life after Life*, the following "pattern" which generalizes the experience as though it were of a single person:

A man is dying and, as he reaches the point of greatest physical distress, he hears himself pronounced dead by his doctor. He begins to hear an uncomfortable noise, a loud ringing or buzzing, and at the same time feels himself moving very rapidly through a long tunnel. After this, he suddenly finds himself outside his own physical body, but still in the same physical environment, and sees his own body from a distance, as though he is a spectator. He watches the resuscitation attempt from this vantage point and is in a state of emotional upheaval.

After a while, he collects himself and becomes more accustomed to his odd condition. He notices that he still has a "body," but one of a very different nature and with very different powers from the physical body he has left behind. Soon other things begin to happen. Others come to meet him and help him. He glimpses the spirits of relatives and friends who have already died, and a loving, warm spirit of a kind he has never encountered before—a being of light—appears before him. This being asks him a question, nonverbally, to make him evaluate his life and helps him along by showing him a panoramic, instantaneous playback of the major events of his life. At some point, he finds himself approaching some sort of a barrier or border, apparently representing the limit between earthly life, and the next life. Yet he finds that he must go back to earth, that the time for his death has not yet come. At this point he resists, for by now he is taken up with his experiences in the afterlife and does not want to return. He is overwhelmed by intense feelings of joy, love, and peace. Despite his attitude, though, he somehow reunites with his physical body and lives.

It seems evident that investigators who have extensive contact with people who have gone through a near-death experience are deeply affected in their attitude toward life—and what we call "death"—and acquire something of the attitude of their subjects: for one thing, they grow into a profound conviction of immortality of some kind for human beings, and they lose all fear of death. Death becomes no more than a transition, never an ending to life. In the case of Dr. Ring, the interviews he did for his 1980 book, *Life at Death*, had the effect of altering the focus of his career. He became more and more involved with people who have had the near-death experience and with what might be called the philosophical or metaphysical implications of this experience. This

is going pretty far off the beaten track for a modern psychologist, as he shows in another book, *Heading Toward Omega* (issued recently by William Morrow & Co., at \$6.95 in paperback). By the "Omega" in his title he means the next great stage in human evolution or development, or indeed the goal of our pilgrimage on earth. His first book was on the reality of the near-death experience, while his second is an attempt to get at its meaning for human beings. He says in his preface:

. . . I have tried to write this book in a more personal vein since it reflects and, I now believe, concludes my own search for a deeper understanding of these extraordinary experiences. And while I have stuffed the statistics describing some of my findings in Appendix III, I have this time introduced into my chapters many of the remarkable people I have met in the course of my travels on the way to Omega. These individuals really provide the substance to my story, and their words will convey what statistics never can, so I hope you will enjoy these NDEr friends of mine and find it as easy and instructive as I have to listen to them. It may be that in speaking of their own awakenings and of the transformations that followed, they will awaken something in you.

In his study Dr. Ring looked at the prior religious inclinations of those who come close to death, finding that on the whole, after the experience, they "take a very universalistic view of who 'qualifies' for life after death. . . . their collective position is 'no one is excluded and particular religious beliefs are irrelevant.'" As to their inclinations after the experience, he says:

It is to be expected that whereas NDErs might agree that there is a life after death, there would be divergence of opinion concerning the form that this postmortem life will take. In this connection, one possibility that recurrently crops up in the literature on NDEs is that of reincarnation—the doctrine that a person (or a person's soul) may have more than one physical existence in human form. Although variants of this doctrine were acceptable to and promulgated by the early Church Fathers, reincarnation was declared heretical and expunged from Christian dogma in the sixth century. In the public mind, therefore, it has come to be associated primarily with Eastern religions such as Hinduism and Buddhism.

There were those in the group interrogated who before the experience had never thought about reincarnation, but after it find themselves inclining spontaneously to the idea. In what might be termed the "death vision" as part of the near-death experience there was for many an element of prophecy concerned with the future of the planet. Generalizing this aspect, Dr. Ring says:

There is, first of all, a sense of having total knowledge, but specifically one is aware of seeing the entirety of the earth's evolution and history, from the beginning to the end of time. The future scenario, however, is usually of short duration, seldom extending much beyond the beginning of the twenty-first century. The individuals report that in this decade there will be an increasing incidence of earthquakes, volcanic activity, and generally massive geophysical changes. There will be resultant disturbances in weather patterns and food supplies. The world economic system will collapse, and the possibility of nuclear war or accident is very great (respondents are not agreed on *whether* a nuclear catastrophe will occur). All of these events are transitional rather than ultimate, however, and they will be followed by a new era in human history marked by human brotherhood, universal love, and world peace. Though many will die, the earth will live. While agreeing that the dates for these events are not fixed, most individuals feel that they are likely to take place during the 1980s.

Such reports will of course be intensely interesting to some readers, while for others Dr. Ring's book may mark the beginning of some fruitful wonderings about the nature of humans and their potentialities.

COMMENTARY
ON RECOGNIZING ALTERNATIVES

ONE thing about the various materials quoted from in this issue is that, for readers who try to make moral awareness a force in their lives, reading these quotations, which seem so profoundly true, so illuminating, and prophetic in so many ways, the texts quoted make them feel far less alone. This is a help that at some times we all need very much, in order not to lose heart.

What Carlyle wrote more than 150 years ago seems exactly right today, and to think that he saw all this so long ago is impressive testimony to the vision and understanding of at least some members of the human race. Carlyle is especially precious to us today because he is able to relate wisdom to the particulars of our lives, helping us to stop taking for granted as good the "progress" which is really no more than a distortion of our abilities at the expense of the inward happiness that comes with a more natural way of life.

The question arises: 'Does the world have a moral economy ruled by laws somewhat different from the laws of physical nature, or the natural economy? The reaction of physical law to what we do seems immediate—if you step off a roof, you fall, and *at once*. There can be no doubt about the kind of law. But when we take advantage of our fellows, misusing them and ignoring their needs and interests, we call that "good business" and a following of the way we think the fittest survive. That in time the habits so engendered create a hard life for everybody—even ourselves—we seldom consider because the time lapse between cause and effect may vary greatly, and we are not given to foresight but to immediate self-interest. And there is a fundamental difference between consolidating self-interest and the larger task of the formation of character. Yet we still admire humans of strong character, of integrity and vision, while seldom emulating them.

Wes Jackson, quoted in *Frontiers*, speaks directly to this folly, while Kenneth Ring, cited in

Review, writes of an order of experience which may have a practical effect on how we think about ourselves, even to the extent of life's actual meaning. Then, in "Children," we have a portrait of a culture in which the most ruthless sort of self-interest is celebrated as the highest good. All this suggests that the time has come for making some far-reaching decisions.

CHILDREN ... and Ourselves UNWELCOME NEWS

ANOTHER choice item for Social Studies is the content of *Nuclear Culture* by Paul Loeb, recently issued by New Society Publishers in Philadelphia, \$9.95 in paperback. This book is about the state of mind of the people who live in or near Hanford, Washington, which was once a tiny farm town in the southeast corner of the state, a more or less desert area, until the managers of the Manhattan Project, made up of the scientists who devised the Atom Bomb, decided to build there a large undertaking for the production of plutonium for use in bombs of weapons grade. The first plutonium produced there was taken to Los Alamos where it was shaped into the bomb which destroyed Nagasaki. The Hanford workers now live in three cities which surround the fenced and guarded area where the reactors were erected. Loeb's book gives a surprisingly complete account of the lives of the people of Hanford, all of whom work in some capacity at the production of plutonium, or in one or another of its support systems.

But the New Society edition is not the first in which *Nuclear Culture* appeared. It first came out in 1982. In 1984 a reader and friend of MANAS sent us his copy to read, asking that we return it. We read it, and took notice of its interesting contents in the May 2 issue of that year. Then, unaccountably, we lost the book—something that almost never happens to us—only to find that the publisher, without any sort of explanation, had withdrawn the book and that it was no longer in the stores. Since the friend who had lent it to us valued it highly, we got desperate and at last wrote the author. He didn't explain the odd behavior of his publisher but, having some copies, sold us one, which we promptly sent to our friend, feeling somewhat the worse for wear about the whole episode. In the current edition, the text begins with a statement by the President of New Society Publishers as to why his company has put the book into print:

Among the dozens of books on nuclear weapons and nuclear power, *Nuclear Culture* is a rarity.

Rather than focusing on the technology and its dangers, this book explores a crucial question: How is it that ordinary men and women devote their lives to building and refining the machines that may kill us all?

The people at Hanford do not see their work as extraordinary. Whether they shape plutonium for bomb tests or build nuclear reactors which may never be finished, for most of them the job is just a job. Doubts about the morality of the bomb or the safety of nuclear power are overshadowed by good wages and faith that the higher-ups know what they're doing. The few questions that are raised are quietly avoided.

The book begins with a description of two workers—a man and a woman—who got contaminated through a mistake (not theirs) and what they had to go through to be decontaminated. Until Hiroshima and Nagasaki were destroyed, what was going on at Hanford was top secret known only to the leading engineers, but after the bombing secrecy was somewhat relaxed, since what they were working on was revealed by the destruction of two Japanese cities.

When the Manhattan Project ended, most Hanford people assumed the site would shut down entirely. But the Cold War began almost as the final bombs fell on Japan and the newly formed Atomic Energy Commission entrusted new operating contractor General Electric with building five more production reactors, two fuel reprocessing plants, and eighty-one waste storage tanks—all to generate plutonium for warheads now aimed at the Soviet Union.

Meanwhile the three cities where the workers lived grew, as the area developed into a source of power and the electricity was sold to public utilities. Much of Loeb's book is devoted to the remarkable skills and interests of the oldtimers working at Hanford, some of whom were not even engineers although they were inventive and solved problems every day. Ample attention is given to the life of the wives, how they adapted to the secrecy practiced by their husbands about their jobs, and how they brought up their children. Nearly everyone was pro-bomb, or found that they had better become so. Distinct cultural patterns emerged, as for example in the life of high school students. Loeb writes:

When the kids reached high school age they attended an institution, Columbia High, whose

athletic teams—called the Bombers—wore jerseys and helmets proudly displaying an exploding mushroom cloud. The mushroom cloud emblem labeled by the principal "a symbol of peace," also went with variations, on a huge green pennant that hung over the gym, on pep club brochures, on bleacher seats and souvenirs, and even on graduation programs and yearbooks. The class of '68 donated an inlay of a finned bomb that was set into the administration floor. . . . Columbia High's emblems were treated as casually as if they'd been images of miniature toothpaste tubes adorning the sweaters of children of Colgate workers.

There is a sense in which the three cities of Hanford exhibited a model of suburban life with all of its advantages and few of its shortcomings, *except*, don't start a local peace group that has any principles or meaning. The wife of a talented engineer tried this, with the consequence that her husband was harassed by security personnel, who began to conduct weekly searches of his car—routine calling for this only once or twice a year. Co-workers stopped joining him for lunch and one person in the peace group was fired, and others found themselves ostracized. Loeb comments:

To a degree, employees' relationship to these institutions resemble those of any citizen silenced by immense bureaucratic forces in an age where our world seems rarely within our control. . . . The weapons culture demands loyalty not only of its employees but of the community that benefits economically from the military presence. Absence of loyalty is equated with disloyalty to the home team—even treason.

Meanwhile the military presence keeps on growing and the demand for conformity becomes stronger. That is why giving high school students some insight into the kind of world they will have to cope with has considerable importance. It now appears that if there are to be fundamental changes, those who are now still young will have to make them, and for this they need what preparation we can give them, like the facts that now get little attention in the schools. Such facts are assembled in *Nuclear Culture*.

There are other facts of equal importance, some of them listed in *The Washington Spectator* for last

April 15, The following is by Tristram Coffin, the *Spectator* editor:

Anthony Lewis writes in the *New York Times*: "In the midst of opulence, the U.S. has an underclass: poor, restless, desperate. . . The homeless huddle on Fifth Avenue corners. Drive to LaGuardia Airport through the streets of Harlem and look at the abandoned buildings and abandoned human beings. One American in seven lives below the official poverty line. That is 33 million people. The rate is far higher for children. One American child in five is in a poor family. Younger children are still worse off; almost a quarter of those under six live in poverty."

The columnist looks at the rising cost of the military, from 22.6% of the budget in 1981 to a projected 32.6% in 1991, and he adds, "But national security is also threatened by a growing underclass."

This underclass is not only in the cities and factory towns. The breadbasket is facing "a nightmare come true," according to Cy Carpenter, president of the National Farmers Union. "We are marching toward total bankruptcy with a \$200 billion debt load." The farm Credit System, the nation's largest agricultural lender, lost \$2.69 billion in 1985, the largest on record for a U.S. financial institution. It was the first loss by the System since the Depression and compares with a 1984 profit of \$373 million. Suicide and other violence occurs, and the *Christian Science Monitor* predicts, "The potential for more violence exists."

The major villain in our economic problems today is Pentagon spending, according to Mark Hatfield, chairman of the Senate Appropriations Committee. He says, "The Pentagon is presently spending an average of \$28 million every hour, 24 hours a day, seven days a week." Tristram Coffin goes on:

This is but a drop in the bucket. The total military expense of the Cold War, beginning in 1945, is \$3 trillion, according to the authoritative Center for Defense Information. This outpouring was for two wars that might have been averted with honor. . . . The top American expert on Soviet affairs, George Kennan, says there was no basis in fact for fears that the Russians would invade West Europe. . . .

FRONTIERS

The Real Agricultural Problem

THERE are dozens of books and articles about the problems of American farmers, some of them good, some superficial. Rarely, however, are the good ones taken seriously because this requires thinking at a level of abstraction we are not at all used to and calls for a far-reaching reform in our lives in both philosophy and practice. This is the fundamental contention of Wes Jackson, founder and director of the Land Institute in Salina, in Kansas. In a talk given earlier this year, he starts out by contesting the claim that the farm problem is an economic problem which needs to be met with an economic remedy of some sort. He says at the beginning:

While most of the phrases about problems on the farm are true, at least in a limited sense, none of them suggest that problems on the farm are more the failure of culture than of economics and public policy. Economics can define the problem, but only in part. It won't provide a solution yet nearly all the public policy decisions are based on economic pressures. . . . We seem to keep hoping for a breakthrough. Note that several of our nation's music stars organized two huge fund-raising concerts last year; one for the starving in Ethiopia and one for the nation's farmers who have produced too much and gone broke. It was done in the same manner as holding a benefit for muscular dystrophy.

What, then, is the essential problem?

Number one, soil loss is greater now than it was fifty years ago when F.D.R. appointed Hugh Hammond Bennett to be the founding chief of what was to become the Soil Conservation Service. It is not widely known that the loss of soil carbon to the atmosphere is more serious than the loss of fossil fuel carbon through burning to the same atmosphere. The loss of soil carbon and other soil nutrients to our offshore deltas and other places inaccessible to agriculture is more serious than the exhaustion of the metals and fossil minerals of our globe. Clearly, soil loss lies at the core of the problem of agriculture. When the extractive economy of industry moved into the potentially renewable economy of agriculture—took it over, in fact—not only were the traditional problems of agriculture worsened, new problems were added. With the industrialization of agriculture the

chemical industry made it possible to introduce chemicals into our fields with which our tissues had no evolutionary experience. Finally, we now have a near total reliance on finite fossil fuels for traction in our fields. It is in this area that we need to peel away the various masks, try to assess the problems at a more fundamental level and offer prescriptions for the culture at large.

Why has Western civilization felt free to apply the extractive methods to all aspects of nature? Why is the world of nature no more than "resources" waiting to be used however we decide is profitable to us? The reason, Wes Jackson thinks, is the psychology of the Hebrew religion, based on a covenant with an unearthly being, Jehovah, who required faithfulness to him, with few if any obligations to anything else.

Such a world view may have been essential for preserving the Hebrew people whose lives were centered around the covenant with God, a covenant that was struck at Mt. Sinai where they "answered in one voice," but it did create problems for us European pantheists when the early Christians brought the legacy of their Hebrew tradition into Europe. Our pantheist forebears saw spirits in rocks, in waterfalls, in the deer of the forest, in the bear. Pan, by definition, was everywhere. The early Christians who came into the wilds of Europe insisted that all of Nature was "nothing but." To worship rocks and streams, bears and bees was to participate in the sin of idolatry. . . .

For the Christian world then, those who believed in a hereafter, immediately translated this as going to heaven. The earth was viewed as a sort of launch pad, a place long on material and short on spirit. With the extirpation of pantheism eventually over vast stretches of the globe, the desacralization of Nature was right on its heels. The consequence is that science, as we know it today, was made possible. It is doubtful that the dissection of living animals and plants can be done by those who believe them to be Holy. Trees to a pantheist would not be viewed as so many board feet in the same manner as they would to a Christian. A pantheist would be less likely to measure the number of acre feet coming over a waterfall than his Christian descendant decades later who had become a scientist. That which is sacred would be handled with a certain reverence.

Without, then, any reverence for the land and all its natural creatures, we were glad to embrace

the rule of Francis Bacon that "Knowledge is Power" and begin to organize the world around our convenience and wants to our heart's (or body's) content.

After pantheism the world was more material than spiritual. Bacon was right. We see that knowledge is power. We are in the fossil fuel epoch. In four or five hundred years we have inverted the structure of society from defining individuals by social position to an individual determining his or her own social relationship. So we have had a bourgeois revolution. . . .

We can readily see how the path of least resistance *has* been employed in agricultural research. The amount of research devoted to the development of agricultural systems which will conserve soil, sponsor nitrogen fertility, manage water effectively and control insects, pathogens and weeds through biological, as opposed to industrial means, is practically nil. Such research would require us to study whole systems and would violate the Cartesian view which places priority on parts over the whole. So the question now becomes, "How do we break the stranglehold of Cartesianism?"

Finally, Wes Jackson concludes:

The ecological pyramid illustrated in the basic texts of ecology surely stands as a rough model for an alternative economic order. It has been billions of years in the making. One thing which is most clear, in such an economy the producers are many and the mere consumers are few, exactly as Confucius described a healthy human society tens of centuries ago. Why is the pyramid inverted? Cheap oil? Human nature? The oil is about gone and never in the history of our country have we been more up against human nature than we are today. In 1776, this continent could absorb lots of bad human nature. The frontier was before us. But the land frontier came to an end. Rather than face our problems squarely we keep looking to expand our frontiers always for the purpose of exploiting them as we always have. . . .

Astronauts headed for orbit may be given more status than a farmer protecting a hillside from erosion, but a farmer who is successful in discovering ways to arrest nutrient loss on his sloping farm has made a more profound discovery than that of all of the colonizers of space combined. So has the farmer who is gradually weaning himself from costly input farming, who is shifting the ratio from being so much

a consumer to more the producer side. These are people who comprehend the idea that the discovery of America lies before us, that so far we have only colonized it.

The problem of the farm is indeed a philosophical issue, based on how we think about both the world and ourselves. It is seldom as well set as Jackson puts it in this lecture.