

Waste Not, Profit Not

The Poverty of Power

by Barry Commoner
Knopf, 265 pp., \$8.95

Reviewed by Anthony Wolff

macy, sundering contact as it was made.

Nixon's need, unsatisfied, is conveyed as much by Julie's arranging a cheerleaders' send-off at his departure for Camp David as by his wife Pat's loneliness when staff people tried to think of friends who might comfort her—Mamie Eisenhower and Billy Graham the only names that came to mind; official friends for the official plight brought on by her official husband. Poor Mrs. Nixon, who never wanted a political life, twitches to the animosities of her husband when no other warmth is left her—insulting John Rhodes in a receiving line after he had called for the President's resignation.

Nixon, at the emotional crisis of his life, was out of sync with those who tried to help him. Unable to achieve real pride or humility, he floundered in the strings, half puppeteer, half puppet; no one could find or tug the right combination of strings to make him respond in orderly ways. The heart throbbed there, somewhere—audible, not findable. There is something touching about the way partial contact was still made, normal responses retained. Nixon got along best in situations with a built-in artificiality about them—in the separate-yet-intimate relationship to a barber, a valet, or a junior aide. There was a truly friendly master-servant relationship that seemed the strongest Nixon could sustain—with Rose Woods, for instance, or his valet, Manolo Sanchez, or Ron Ziegler. If we are to believe Patrick Buchanan, Miss Woods consumed herself in the act of erasing Nixon's tape; it was the culmination of a whole life's sacrifice. And Nixon remained a hero to his valet—not the worst of valedictories.

This is not an anti-Nixon book. It wounds with facts, yet heals with them as well. It is more damaging to others, with careers still before them—to Kissinger, to Elliot Richardson, to James St. Clair. Many are perceived as flawed yet well intentioned—e.g., Haig and Buzhardt. The Nixon sons-in-law are the closest thing to surrogates for the readers let into this anguish hour by hour—young men critical yet loyal, involved by affection yet trying to keep events at arm's length for the mind to scrutinize. Their problem becomes the reader's, where the agony portrayed forbids mockery. Facts crowd in on us as they did on Nixon and his retinue. Little of moral grandeur is left by the end. One willingly grants Mr. Sanchez his illusion and finds a damaged heroism in Nixon's departure. □

For most of us, the first time we didn't understand the energy crisis was when we were kids and we left lights on all over the house. Our parents scolded us for wasting electricity, complaining that they worked all day "just to make the power company rich." We kids knew better: energy was easy come and easy go, appearing from some mysterious source, invisible and clean, ready to work at the flick of a switch, the press of a button. Parents, we concluded, were penny pinchers.

We didn't understand then, and we don't understand any better now, when our fathers in Washington warn us that if we don't turn off the lights and turn down the thermostats we're all going to end up working for the Arabs, or when the energy companies complain that if we don't make them richer they won't be able to deliver any more light or heat anyway.

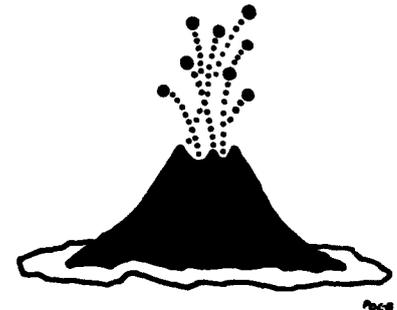
In *The Poverty of Power*, Barry Commoner, chairman of the board of the Scientists' Institute for Public Information, takes on the awesome job of making us understand energy: what it is, where it comes from, and how it is—and should be—used. And more: Commoner is also the director of the Center for the Biology of Natural Systems, in St. Louis, and he has long been one of the most lucid and engaging exponents of the ecological axiom that "everything is connected to everything else." Energy, in this case, drives both the ecological cycles and the economic wheels of our world. Therefore, he suggests, if we wish to restore our degraded environment and our depressed economy, we would do well to look not to tax legislation or technology, but to reforming our misuse of energy.

Understanding before reform, however. The crux of our confusion about energy, Commoner suggests, is that we are trying to obey the wrong Law of Thermodynamics. We pay more heed to the First Law, which tells us how much of a particular fuel's energy we are getting, than to the Second, which would show us how efficiently we are using that energy to do some specific piece of work.

According to the Second Law—as in-

terpreted by Commoner—oil wastes about 90 percent of its energy when used to power automobiles or to heat homes. Meanwhile, new domestic oil supplies are getting more and more expensive to develop, and the oil companies complain that they can't keep up with demand without massive infusions of capital—to be derived from inflated prices. It is Commoner's conclusion that "the oil companies are not a reliable vehicle for the production of U.S. oil, for they seem to be interested less in producing oil than in producing profit."

Coal, on the other hand, is abundant and easy to find. At our present rate of consumption, and with our current mining technology, we have enough underground to last 400 to 600 years. Commoner insists, however, that it would be sheer folly to convert coal into oil—which is just what President Ford and the coal industry are planning. Their scheme, says Commoner, "flies in the face of thermodynamics," using up one-third of the



coal's energy in the conversion process to produce a fuel that will be used with only 10 percent efficiency (Second Law) in automobiles and home furnaces. Meanwhile, the extraction and combustion of both coal and oil entail a long list of ill effects on both human and environmental health.

Nevertheless, Commoner reminds us, our government has actually made attempts to get the Arabs to keep their oil prices high in order to make the development of alternative energy sources—i.e., coal conversion—attractive to private industry. Another Ford initiative—to set up a \$100 billion government-backed corporation to take on the job—would "burden the people of the U.S. with higher fuel prices if it succeeds, or with higher taxes if it fails."

As for nuclear power, long heralded as the imminent answer, its major virtue, in

Commoner's view, is that it hasn't happened yet. The Scientists' Institute for Public Information, with Commoner at its head, has argued in and out of court against headlong development of nuclear technology. A long chapter of *The Poverty of Power* reviews the risks of mishap or mischief involved in handling large amounts of nuclear fuel, using it, and then dealing with its wastes. To suggest the social costs of nuclear power, he quotes one of its foremost proponents, A. M. Weinberg:

We nuclear people have made a Faustian bargain with society. On the one hand, we offer . . . an inexhaustible source of energy. . . . But the price we demand . . . is both a vigilance and longevity of our social institutions that we are quite unaccustomed to. . . . In a sense we have established a military priesthood which guards against inadvertent use of nuclear weapons. . . . Peaceful nuclear energy probably will make demands of the same sort on our society.

As with oil and coal, Commoner reports, so with nuclear power: despite the physical and social hazards, and despite the "thermodynamic overkill" of using a million-degree heat source to make thousand-degree steam to make electricity to heat 68-degree houses, the government is encouraging private industry into the nuclear game with profit guarantees.

MEANWHILE, we are neglecting the cheapest, most plentiful, cleanest source of energy: solar radiation, which beams down on us at the rate of a potential \$500 billion worth every day. Diffused sunlight is low-heat energy, ideal for heating water or homes. For industrial use it can be reconcentrated to near-solar intensity. Although solar energy isn't portable, it can be used to make hydrogen fuel for vehicles. The technol-

ogy is relatively simple, according to Commoner; the problem is that there's no profit in it, and therefore neither industry nor the government has shown much interest in promoting research and development.

Squandering our energy resources in the name of "the maximization of profit," Commoner says, "we have been provided with the wrong kinds of heating and cooling devices, the wrong kinds of automobiles and freight carriers, the wrong kinds of power plants, the wrong kinds of fuels. . . ." Agriculture, as a result, has become capital-intensive, and the farmer ends up paying more and more for high-energy fertilizers, equipment, and fuel in return for diminishing marginal improvements in income or production. Citing tentative, first-year results from a study of 32 commercial farms—half "organic" and half conventional—Commoner says that "organic farms appear to yield about the same economic returns as the conventional ones, but do so by using about one-third as much energy."

Meanwhile, "with remarkable precision the U.S. transportation system has favored those modes of transportation that are thermodynamically inefficient and low in capital productivity." For the greater profit of auto and bus manufacturers, Commoner alleges, trolley lines and railroads have been systematically sabotaged. Worst of all is the petrochemical industry, which Commoner thinks ought to be limited to making replacement heart valves, phonograph records, shatterproof glass, and other uniquely plastic goods, instead of replacing cotton, clay, wood, wool, and other traditional materials that can be produced with less capital and less energy.

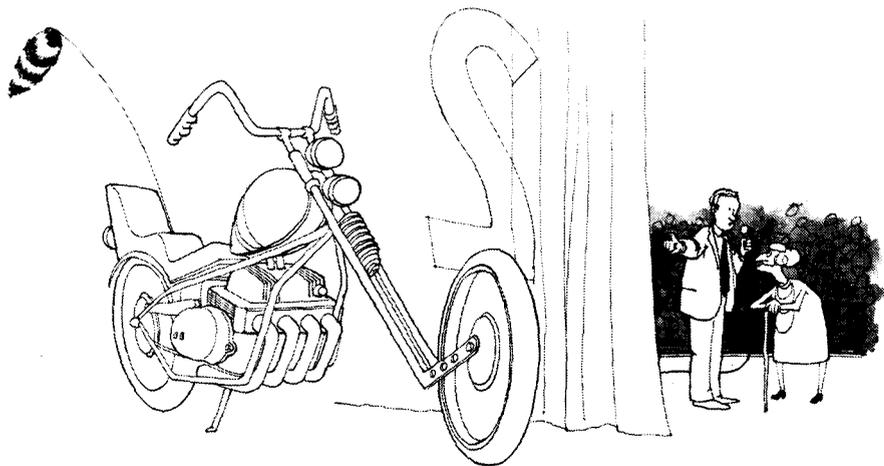
"We shall need to consider," says

Commoner, "whether, in deciding what is produced and how to produce it, we are to be governed by the goal of maximizing social value or of maximizing private profit." As it is, he concludes, the pursuit of short-term profits has dictated inefficient uses of energy, which in turn have produced today's climactic capital shortages and labor surpluses. Finally, Commoner quotes Engels's gloss of Karl Marx:

Capital is not merely reproduced; it is continually increased and multiplied. . . . However, owing to the progress of machinery . . . fewer and fewer workers are necessary in order to produce the same quantity of products. They form an industrial reserve [which] is irregularly employed or comes under the care of public Poor Law institutions.

While the unemployed are left to the vagaries of the welfare state, Commoner points out, industry gains access to the public purse to make up its capital deficits. "The question that arises is whether their expanding social economic base will be reflected in some form of public social control, so that the production and use of their power can be governed by social values rather than by private profit." In the end, Commoner's answer to our woes comes down to solar power and democratic socialism.

From the Laws of Thermodynamics to Marx's Law of Capital Accumulation in 265 pages: Commoner is nothing if not daring and ambitious. Toward the end of his argument, he admits that in his economics he is venturing "outside my own professional training." But "the risk of error," he says, is "a duty that we"—both scientists and economists—"owe to a deeply troubled society." The lay reader—neither economist nor scientist, but "deeply troubled"—may wonder whether it is possible to accept the Laws of Thermodynamics and Commoner's lucid and helpful analysis of their implications for our use of energy, without at the same time necessarily endorsing the Law of Capital Accumulation and the socialist consequences Commoner derives from it. Certainly there is no good reason to assume, as Commoner seems to without offering any evidence, that "public, social control" of capital and energy resources will ipso facto result in their rational allocation according to sound thermodynamic principles. Indeed, as Commoner himself demonstrates repeatedly in the book, public decisions are as prone to error as private ones, and "social values" are not always unambiguously perceived. □



"All right, Miss Frisblaine, you've chosen curtain number two. Have we got a present for you!"

L. Whitaker

The Ages of Man—and Woman

Passages: The Predictable Crises of Adult Life

by Gail Sheehy
E. P. Dutton, 320 pp., \$9.95

Reviewed by Jill Tweedie

The predictable crises of childhood have, over the past 25 years or so, been almost alarmingly well documented. The little dears have merely to twitch and some adult will leap in, polishing phrases and buffing up aphorisms: a touch of sibling rivalry here, an imitation-learning phase there, Spock's in his heaven, all's right with the world.

But once the adolescent crunch is over, where are the manuals, where the maps to the uncharted regions ahead? You can, of course, rush into the embrace of shrinks at the first hint of rough seas, but this in itself betrays an assumption shared more widely, perhaps, by Americans than by any other nationality: that adult life is ordained to be one long idyll, and that anything which disrupts that idyll is a deformation, a lone failure. This assumption is a heavy and quite unnecessary burden to tote through the years because, as Gail Sheehy makes crystal clear in her new book, not only are there crises in every life, not only do they occur with reasonable predictability, but they are (cheerily) entirely natural—comparable, say, to the seasons of the year or to the germination of a seed.

Miss Sheehy has constructed from her study of many individual case histories a blueprint of adult life, marked off by milestones indicating the "passages" from one state of being to another. She has, in fact, produced today's secular version of that grand old life map provided for our ancestors by John Bunyan in *Pilgrim's Progress*, though the "sins" of her book are of omission rather than of commission, and the final goal, Bunyan's heaven, is Sheehy's liberation from self. The two goals are not dissimilar.

The milestones, in order of age, are "Pulling Up Roots," "The Trying Twenties," "Passage to the Thirties," and "The Deadline Decade—Setting Off on the Midlife Passage," a title positively bracing in its implication of future ad-

ventures rather than stagnation. Miss Sheehy's thesis (with many nods in the direction of Erik Erikson and his eight stages of man) is that everyone comes to each milestone and everyone must pass beyond it in order to advance, strengthened and refueled, toward the next. However, given that the approach of each milestone is often signaled by an inner dis-ease or even an outer disease, attempts to dodge, camouflage, or ignore it are legion. To read *Passages* is to recognize many of one's own personal evasions. It is all a little like tunneling through a particularly complex maze: the many dead ends are superficially inviting but are nevertheless impassable in the most literal sense. To get out of them and onto the straight and narrow once again involves backtracking and starting over.

Miss Sheehy describes various typical dead ends that emerged in her interviews. Part of the Pulling Up Roots phase, for example, is the need to escape from family ties by substituting a powerful idea or an admired person for the parents. The most obvious refusals to pass this milestone are refusals of recognition. The young man follows in his father's footsteps without thought—which is temptingly easy if father has provided footsteps well lined with greenbacks and laurels. The girl, hungry for freedom but frightened, too, marries from home, replacing father with husband. Other young people substitute an overwhelmingly authoritarian idea, political or religious, using the strict discipline they impose to shield themselves from self-discovery, from progress. All these people find themselves, in Miss Sheehy's words, "locked in." They have made a necessary move but have closed

the doors too firmly behind them. Miss Sheehy's words of wisdom at this stage are, roughly: find out what you *don't* want to do, who you *don't* want to be, first.

ONE DEPRESSING IDEA emerges very clearly from this book. The American Dream, as embodied in both the rags-to-riches corporate life and the happy-ever-after monogamous couple and their 2.08 children, might have been invented to make as many people as miserable, failure-prone, and "locked in" as possible. The corporate life, as vehicle for the fulfillment of a man, is at best chancy and at worst positively stunting. The drive for power—for the "presidency," whether of company or country—demands a continuity of motive not at all compatible with the personality's changing needs. Because a man has sacrificed all other aspects of his personality to a single one, because he has balked at all milestones but one, when he hits the top he is all too often bereft of love, of self-respect, of self-fulfillment. The gold has turned to dead leaves. Each of Miss Sheehy's milestones has been avoided, and the man at the top finds himself in the awesome position of having to either backtrack on a speeding train or attempt, desperately, to deny the missing stages by dyeing his hair, honing his belly, and filling the vacuum with younger and younger flesh.

And because marriage forces outward necessity upon inner needs, it fares little better as an instrument for human development, a fact Americans increasingly demonstrate with their actions, if not with their dreams. The couples portrayed in *Passages* are continually out of step with each other, continually and unknowingly pushing each other aside in the milestone battle. When the husband is feeling his oats, flexing his muscles in the outside world and loving it, his wife is at home bearing and rearing the children, a care-giver with little chance to develop vis-à-vis the outside world. Then, as she begins to feel the drive to define herself by her own talents, she finds herself locked in and must risk the disruption and unhappiness of her family to break out, often at exactly the time when her husband, either defeated or covered with laurels, turns back into care-giving, into the wish for a quieter, more intimately domestic life. Collision, divorce. A continuing marriage, then, depends either on each partner's being prepared to offer the other a personal autonomy that



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