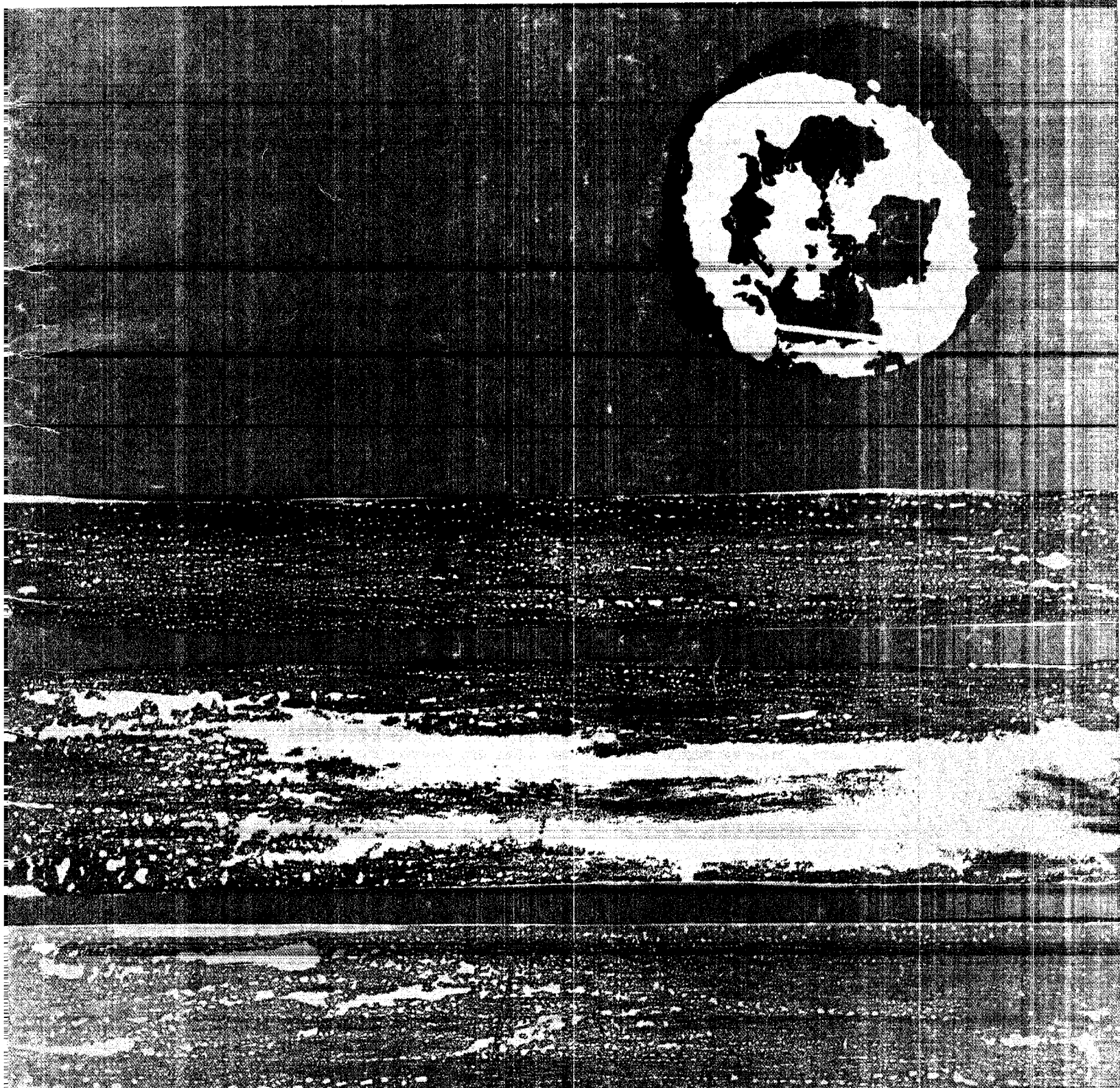


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# THE CENTER MAGAZINE



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The Energy Bind — Barry Commoner and Ralph Nader

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# THE CENTER MAGAZINE

A Publication of the Center for the Study of Democratic Institutions

Editor — Donald McDonald

The two articles in this issue by Barry Commoner (page 26) and Ralph Nader (page 32) have much to say on energy, but they go far deeper and raise questions concerning the proper political and economic organization of a modern, energy-dependent, technological society such as ours. With due allowance for the absence of any precise and verified measurement of our oil, coal, and natural gas reserves, we know that the period of energy self-sufficiency for the United States is limited, at least at the levels on which Americans have been consuming energy. President Ford and Secretary of State Kissinger have said they would not hesitate to use force to obtain foreign oil if the country is in danger of being strangled to death for lack of it.

The articles by Mr. Commoner and Mr. Nader are not addressed to the Ford-Kissinger threat, but they argue that, with proper leadership, the American people can learn to accept and adapt to energy-use alternatives. They also argue that the allocation of energy resources must be reexamined (is, for example, the production of petroleum-based plastic goods more important than the production of food?), and that government must assume far greater public-interest responsibility in the over-all direction of the production, pricing, and distribution of energy than it has been willing to assume to date.

Several other articles in this issue are also concerned with the government's relationship with citizens. A report on C.I.A. Director William E. Colby's talk and ensuing discussion at a conference on the Central Intelligence Agency's overseas covert operations (page 71) lets in a bit of light on what until now has been virtual opacity.

The federal government's management of the nation's forests, the subject of our Second Edition reprint of Charles Reich's article in the last issue, comes in for some stout defense, searching scrutiny, and not a little criticism in the Follow-Up (page 38).

Lord Ritchie-Calder's recollection of World War II and postwar relations between the British government and scientists (page 52) indicates that the uneasiness and compromise, as well as the satisfactions, experienced by our own scientists in that regard were not and are not unique.

Some of the problems of the aging in our society are examined by Alex Comfort, Carl Eisdorfer, Harry Ashmore, and Maggie Kuhn in the report beginning on page 10. Dr. Thomas Szasz looks critically at the doctor-patient relationship (page 2), and R. J. Zwi Werblowsky tells of his experience with Zen Buddhism (page 61).

— ED.

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# THE MORAL PHYSICIAN

What is the moral mandate of medicine? Whom should the physician serve? The answers to these simple questions are by no means clear. Since medicine has rather intimate connections with health and illness, life and death, it is not surprising that we are now as uncertain about the aim of medicine as we are about the aim of life itself. Indeed, we can be no more clear or confident about what medicine is for than we can about what life is for.

The moral foundations of modern medicine have a dual ancestry: from the Greeks, medicine has inherited the idea that the physician's primary duty is to his patient; and from the Romans, that his primary duty is to do no harm. The first, although quite unrealized, is often said to be the ideal of Western medicine; the second, although quite unrealizable, is often said to be its First Commandment.

*Primum non nocere.* (First, do no harm.) What a lofty prescription! But what an absurd one! For the question immediately arises: To whom should the physician do no harm? And who will define what constitutes harm?

Life is conflict. The physician often cannot help a person without at the same time harming someone else. He examines an applicant for life insurance, finds that he has diabetes or hypertension, and reports it to the insurance company; he treats a Hitler or Stalin — or an ordinary person, for that matter — and helps to prolong his life; he declares that a woman who tortures her husband with false accusations of infidelity is psychotic, and brings about her

psychiatric incarceration. In each of these cases the physician harms someone — either the patient or those in conflict with him.

These examples merely scratch the surface. We may add to them the physician's involvement with persons desiring abortions or narcotics, with the suicidal patient, with military organizations, and with research in biological warfare — and we see how woefully inadequate, indeed how utterly useless, are the traditional moral guidelines of medicine for the actual work of the physician, whether as investigator or practitioner.

Accordingly, if we wish to confront the moral dilemmas of medicine intelligently, we must start, if not from scratch, then from the basics of ethics and politics.

Everywhere, children, and even many adults, take it for granted not only that there is a God but that he can understand their prayers because he speaks their language. Likewise, children assume that their parents are good, and if their experiences are unbearably inconsistent with this image, they prefer to believe that they themselves are bad rather than that their parents are. The belief that doctors are their patients' agents — serving their patients' interests and needs above all others — seems to me to be of a piece with mankind's basic religious and familial myths. Nor are its roots particularly mysterious: when a person is young, old, or sick, he is handicapped compared to those who are mature and healthy; in the struggle for survival, he will thus inevitably come to depend



on his fellows who are relatively unhandicapped.

Such a relationship of dependency is implicit in all situations where clients and experts interact. Because in the case of illness the client fears for his health and even life, the dependency relationship is especially dramatic and troublesome in medicine. In general, the more dependent a person is on another, the greater will be his need to aggrandize his helper; and the more he aggrandizes his helper, the more dependent he will be on him. The result is that the weak person easily becomes doubly endangered: first, by his weakness and, second, by his dependence on a protector, who may choose to harm him.

These are the brutal but basic facts of human relationships of which we must never lose sight in considering the ethical problems of biology, medicine, and the healing professions.

As helplessness engenders belief in the goodness of the helper, and as utter helplessness engenders belief in his unlimited goodness, those thrust into the roles of helpers — whether as deities or doctors, as priests or politicians — have been only too willing to assent to these characterizations of themselves. This imagery of total virtue and impartial goodness serves not only to mitigate the helplessness of the weak, but also to obscure the conflicts of loyalty to which the protector is subject. Hence the perennial appeal of the selfless, disinterested helper professing to be the impartial servant of all of mankind's needs and interests.

Traditionally, it was, of course, the clergy who have claimed to be the agents of all of mankind — asserting that they were the servants of God, the creators and caretakers of all mankind. Although this absurd claim has had its share of success, it was doomed to be rejected in time because the representatives of the most varied creeds all claimed to speak for the whole of mankind. Gullible as men are, they can stand just so much inconsistency. By the time our so-called modern age rolled around, the mythology of any particular religion speaking for all of mankind became exposed for what it is, the representation of certain values and interests as the values and interests of everyone. Nietzsche called this the death of God. But God did not die. He merely disappeared behind the stage of history to don other robes and re-emerge as scientist and doctor.

Since the seventeenth century, it has been mainly the scientist — especially the so-called medical scientist or physician — who has claimed to owe his allegiance not to his profession or nation or religion, but to all of mankind. But if I am right in insisting

that such a claim is always and of necessity a sham, that mankind is so large and heterogeneous a class, consisting of members with inherently conflicting values and interests, that it is meaningless to claim allegiance to it or to its interests, then it behooves us, as independent thinkers, to ask ourselves: "Whose agent is the expert?"

Plato was fond of using the physician as his model of the rational ruler, and in *The Republic* he explicitly considered the question of whose agent the physician is. Early in that dialogue, he offers us this exchange between Socrates and Thrasymachus:

"Now tell me about the physician in that strict sense you spoke of: Is it his business to earn money or to treat his patients? Remember, I mean your physician who is worthy of the name."

"To treat his patient."

It would seem that we have not advanced one step beyond this naive, hortatory answer to the question of whose agent the physician is. In the conventional contemporary view, too, the doctor's role is seen as consisting in the prevention and treatment of his patient's illness. But such an answer leaves out of account the crucial question of who defines health and illness, prevention and treatment.

Although Plato seemingly supports the idea that the physician's duty is to be his patient's agent, this is not, as we shall see, what he supports at all. By making the physician the definer not only of his own, but also of his patient's best interests, Plato actually supports a coercive, collectivistic medical ethic rather than an autonomous, individualistic one. Here is how Plato develops his defense of the physician as agent of the state:

"But now take the art of medicine itself . . . [it] does not study its own interests, but the needs of the body, just as a groom shows his skill by caring for horses, not for the art of grooming. And so every art seeks, not its own advantage — for it has no deficiencies — but the interest of the subject on which it is exercised."

Having established his claim for benevolent altruism, Plato proceeds to draw the ethical and political conclusions he was aiming at all along: the moral justification of the control of the subordinate by

the superior — patient by doctor, subject by ruler:

“But surely, Thrasymachus, every art has authority and superior power over its subject. . . . So far as the arts are concerned, then, no art ever studies or enjoins the interest of the superior party, but always that of the weaker over which it has authority. . . . So the physician, as such, studies only the patient’s interest, not his own. For, as we agreed, the business of the physician, in the strict sense, is not to make money for himself, but to exercise his power over the patient’s body. . . . And so with government of any kind: no ruler, insofar as he is acting as ruler, will study or enjoin what is for his own interest. All that he says and does will be said and done with a view to what is good and proper for the subject for whom he practices his art.”

That this argument is contrary to the facts, Thrasymachus himself points out. But such facts scarcely affect the force of Plato’s rhetoric, which is based on the perpetually recurring passions of men and women to control and be controlled. Thus, Plato’s rhetoric has still an astonishingly timely ring: it would serve, without any significant modification, as a contemporary exposition of what is now usually called “medical ethics.”

Indeed, so little have men’s views changed in the past 2,500 years on the dilemma of the physician’s dual allegiance — to himself and to his patient — that it will be worth our while to follow to its end Plato’s argument about the selflessness of the moral man of medicine:

“. . . any kind of authority, in the state or in private life, must, in its character of authority, consider solely what is best for those under its care . . . each [skill] brings us some benefit that is peculiar to it: medicine gives health, for example; the art of navigation, safety at sea; and so on.”

“Yes.”

“And wage-earning brings us wages; that is its distinctive product. Now, speaking with that precision which you proposed, you would not say that the art of navigation is the same as the art of medicine, merely on the ground that a ship’s captain regained his health on a voyage, because the sea air was good for him. No more would you identify the practice of medicine with wage-earning because a man may keep his health while earning wages, or a physician attending a case may receive a fee.”

“No.”

“. . . this benefit, then — the receipt of wages — does not come to a man from his special art. If we are to speak strictly, the physician, as such, produces health; the builder, a house; and then each, in his further capacity as wage-earner, gets his pay. . . . Well, then, Thrasymachus, it is now clear that no form of skill or authority provides for its own benefit.”

As these quotations show, Plato was a paternalist, or, as Karl Popper — with whose important analysis of Plato I am very largely in agreement — puts it in *The Open Society and Its Enemies*, he was a totalitarian. Quite simply, what Plato advocates is what many people seem to need or want, at least some of the time: namely, that the expert should be a leader who takes the burden of responsibility for personal choice off the shoulders of the ordinary man or woman who is his client. This ethical ideal and demand, characteristic of the closed society, must be contrasted with the ethical ideal and demand of the open society in which the expert must speak the truth and the client must bear the responsibility of his own existence, including his choice of expert.



I shall have more to say later about this fundamental alternative between authority and autonomy, noble lies and painful truths. For now, I want to follow Plato a little further in *The Republic* to show how inextricably intertwined in his thought are the notions of authority and mendacity — indeed, how it is power that renders lying virtuous, and powerlessness that renders it wicked:

“Is the spoken falsehood always a hateful thing? Is it not sometimes helpful — in war, for instance, or as a sort of medicine . . .? And in those legends we were discussing just now, we can turn fiction to account; not knowing the facts about the distant past, we can make our fiction as good an embodiment of truth as possible.”

In this Platonic program of fictionalizing history we recognize, of course, another much-applauded modern “scientific” enterprise — in fact, a species of psychiatric prevarication which its practitioners pretentiously call “psychohistory.” As the modern psychiatric physician is entitled, by his limitless benevolence, to use mendacity as medicine, so, according to Plato, is the Ruler:

"If we were right in saying that gods have no use for falsehood and it is useful to mankind only in the way of a medicine, obviously a medicine should be handled by no one but a physician. . . . If anyone, then, is to practice deception, either on the country's enemies or on its citizens, it must be the rulers of the commonwealth, acting for its benefit; no one else may meddle with this privilege. For a private person to mislead such rulers we shall declare to be a worse offense than for a patient to mislead his doctor. . . ."

Plato also uses a metaphor of mendacity as medicine to justify his eugenic policies. All the mischief done ever since in the name of genetics as a means of "improving the human race" has been perpetrated by following the policy here proposed by Plato:

"... Anything like unregulated unions would be a profanation in a state whose citizens lead the good

*Plato's dictum "supports  
the most disreputable  
medical, eugenic,  
and psychiatric policies"  
of modern governments*

life. The rulers will not allow such a thing. . . . We shall need consummate skill in our rulers . . . because they will have to administer a large dose of that medicine we spoke of earlier. . . . We said, if you remember, that such expedients would be useful as a sort of medicine. . . . It follows from what we have just said that, if we are to keep our flock at the highest pitch of excellence, there should be as many unions of the best of both sexes, and as few of the inferior, as possible, and that only the offspring of the better unions should be kept. And again, no one but the rulers must know how all this is being effected; otherwise, our herd of guardians may become rebellious."

Clearly, the Platonic physician is an agent of the state — and, if need be, the adversary of his patient. In view of the immense influence of Platonic ideas

on modern medicine, it is hardly surprising that we now face moral dilemmas attributable directly to the medical arrangement advocated by Plato and his countless loyal supporters, past and present.

Lest it seem that I have overemphasized the Platonic physician's allegiance to the state, even at the cost of being the unconcealed adversary of the so-called patient, let us see what Plato says about physicians as physicians, not as the models of rulers. What he says may seem shocking to some of us — because it sounds so modern and because it supports the most disreputable medical, eugenic, and psychiatric policies of twentieth-century governments, both totalitarian and free.

Revealingly, Plato begins his discussion of the duties of doctors by reviling malingerers and persons now usually called mentally ill. Admittedly, Plato's objection to medicalizing ordinary miseries — problems in living — is a position I myself support, but for a reason and an aim which are the very opposite of his: he wants doctors to persecute such people, and persecuted by them they have been; whereas I want doctors to leave them alone, if that is what the "patients" want.

"Is it not [asks Plato rhetorically] also disgraceful to need doctoring, not merely for a wound or an attack of some seasonal disorder, but because, through living in idleness and luxury, our bodies are infested with winds and humors, like marsh gas in a stagnant pool, so that the sons of Asclepius are put to inventing for diseases such ingenious names as flatulence and catarrh?"

"Yes; they are queer, these modern terms."

"And not in use, I fancy, in the days of Asclepius himself. . . . In the old days, until the time of Herodicus, the sons of Asclepius had no use for the modern coddling treatment of disease. But Herodicus, who was a gymnastic teacher who lost his health, combined training and doctoring in such a way as to become a plague to himself first and foremost and to many others after him."

"How?"

"By lingering out his death. He had a mortal disease, and he spent all his life at its beck and call, with no hope of a cure and no time for anything but doctoring himself. . . . His skill only enabled him to reach old age in a prolonged death struggle."

Plato clearly disapproves of such use of medicine and the art of the physician. He all but calls poor Herodicus a "useless eater." And he minces no words

in asserting that a physician ministering to such a sufferer is a bad man — a traitor to the community and the state.

“... if Asclepius did not reveal these valetudinarian arts to his descendants, it was not from ignorance or lack of experience, but because he realized that in every well-ordered community each man has his appointed task which he must perform; no one has leisure to spend all his life in being ill and doctoring himself.”

What, then, should a chronically ill person do? He should die — “get rid of his troubles by dying,” is the way Plato puts it — for his own sake and the sake of the state. But what about persons who feel sick, who are preoccupied by their own ill health and its care, but who are not sick enough to die? Physicians should turn their backs on such persons: “They should not be treated,” he says, thus unmistakably identifying the sufferer’s own desire for medical care as a wholly irrelevant criterion for legitimizing such treatment.

It seems to me that never before — not just in totalitarian societies but in all societies — has Western medicine been so dangerously close to realizing this particular Platonic ideal of medicine as today. Here, again, are Plato’s own words on this subject:

“Surely, there could be no worse hindrance than this excessive care of the body. . . . Shall we say, then, that Asclepius recognized this and revealed the art of medicine for the benefit of people of sound constitution who normally led a healthy life, but had contracted some definite ailment? He would rid them of their disorders by means of drugs or the knife and tell them to go on living as usual, so as not to impair their usefulness as citizens. But where the body was diseased through and through, he would not try, by nicely calculated evacuations and doses, to prolong a miserable existence and let his patient beget children who were likely to be as sickly as himself. Treatment, he thought, would be wasted on a man who could not live in his ordinary round of duties and was consequently useless to himself and society.”

Implicit throughout this dialogue is the identity of the person making the judgment about who is useful and who is not, who should be treated and who should not: it is the physician, not the patient.

Herein lie the main lessons for our present ethical predicaments in genetics. They are best framed as

questions: Do we support or oppose the view — and the policy — that the expert’s role should be limited to providing truthful information to his client? Do we support or oppose the view — and policy — that the expert’s duty is to decide how the nonexperts should live, and that he should therefore be provided with the power to impose his policies on those so unenlightened as to reject them?

If we are not skilled at analyzing Plato’s arguments, if we do not realize that choices such as these confront us with the necessity of rank ordering our values, and if we blind ourselves to the conflicts in life between bodily health and personal freedom, then we may become geniuses at manipulating the gene, but we will remain morons about trying to manipulate our fellowman and letting him manipulate us. Plato had no hesitation in judging, and in letting physicians judge, whose life was “worth something” and whose was not, who should be treated and who should not:

“... if a man had a sickly constitution and intemperate habits, his life was worth nothing to himself or to anyone else; medicine was not meant for such people and they should not be treated, though they might be richer than Midas.”



It seems to me difficult to overemphasize that Plato’s proposals are political remedies for perennial moral problems. How should society treat the sick and the weak, the old and the “socially useless”? How should the services of healers be employed: like those of soldiers, of priests, or of entrepreneurs? We should beware of flattering ourselves by believing that new biomedical capabilities necessarily generate genuinely new moral problems — especially as we haven’t solved, haven’t even faced, our old problems.

I shall not belabor the idiocies and horrors proposed or perpetrated in the name of medicine, specifically genetics, in recent decades. A single example will illustrate the point that medical experts, like all human beings, may easily identify themselves with the holders of power, may eagerly become their obedient servants, and in this way, may suggest and support the most heinous policies of mayhem and murder against suffering or stigmatized individuals.

The following words, written in 1939, are not those of a Nazi physician but of a distinguished scientist who must have been thoroughly familiar with Plato:

“Eugenics is indispensable for the perpetuation of the strong. A great race must propagate its best elements. However, . . . women voluntarily deteriorate through alcohol and tobacco. They subject themselves to dangerous dietary regimens in order to obtain a conventional slenderness of their figure. Besides, they refuse to bear children. Such a defection is due to their education, to the progress of feminism, to the growth of shortsighted selfishness. . . .

“Eugenics may exercise a great influence upon the destiny of the civilized races. . . . The propagation of the insane and feeble-minded . . . must be prevented. . . . No criminal causes so much misery in human groups as the tendency to insanity. . . . None should marry a human being suffering from hidden hereditary defects. . . . Obviously, those who are afflicted with a heavy ancestral burden of insanity, feeble-mindedness, or cancer should not marry. . . . Thus, eugenics asks for the sacrifice of many individuals. . . . Marriage must cease being only a temporary union. . . . Women should receive a higher education, not in order to become doctors, lawyers, or professors, but to rear their offspring to be valuable human beings. . . . There remains the unsolved problem of the immense number of defectives and criminals. . . . As already pointed out, gigantic sums are now required to maintain prisons and insane asylums and to protect the public against gangsters and lunatics. Why do we preserve these useless and harmful human beings? The abnormal prevent the development of the normal. . . . Why should society not dispose of the criminals and the insane in a more economical manner? . . .

“Criminality and insanity can be prevented only by a better knowledge of man, by eugenics, by changes in education and in social conditions. Meanwhile, criminals have to be dealt with effectively. . . . The conditioning of petty criminals with the whip, or some more scientific procedure, followed by a short stay in hospital, would probably suffice to insure order. Those who have murdered, robbed while armed with automatic pistol or machine gun, kidnapped children, despoiled the poor of their savings, misled the public in important matters, should be humanely and economically disposed of in small euthanasic institutions supplied with proper gases. A similar treatment could be advantageously applied to the insane guilty of criminal acts.”

The man who wrote this was Alexis Carrel (1873-1944), surgeon and biologist, member of the Rockefeller Institute in New York, and the recipient, in

1912, of the Nobel Prize in physiology and medicine for his work on suturing blood vessels. The quotation is from his book, *Man, the Unknown*.



Besides being an agent himself, which, of course, the medical scientist or physician always is, and besides being an agent of his patient, which the physician is more and more rarely (hence the disenchantment with medical care among both physicians and patients, despite the remarkable technical advances of medical science), the physician may, and indeed often is, the agent of every conceivable social institution or group. It could hardly be otherwise. Social institutions are composed of, and cater to, the needs of human beings; and among human needs, the need for the health of those inside the group — and, frequently, for the sickness of those outside of it — is paramount. Hence the physician is enlisted, and has always been enlisted, to help some persons and harm others — his injurious activities being defined, as we have already seen in Plato's *Republic*, as helping the state or some other institution.

Let me offer a very brief review — really only a bird's-eye view — of how physicians have, through the ages, not only helped some, usually those who supported the dominant social ethic, but also harmed others, usually those who have opposed the dominant social ethic.

During the late Middle Ages, physicians were prominent in the Inquisition, helping the inquisitors to ferret out witches by appropriate “diagnostic” examinations and tests.

The so-called discipline of public health, originating in what was first revealingly called “medical police” (*Medizinapolizei*), came into being to serve the interests of the absolutist rulers of seventeenth- and eighteenth-century Europe. George Rosen says, in *A History of Public Health*, the term was first used in 1764 by Wolfgang Thomas Rau (1721-1772); “This idea of medical police, that is, the creation of a medical policy by government and its implementation through administrative regulation, rapidly achieved popularity. Efforts were made to apply this concept to the major health problems of the period, which reached a high point in the work of Johann Peter Frank (1745-1821) and Franz Anton Mai (1742-1814).”

The medical police was never intended to help the individual citizen or sick patient; instead, it was quite explicitly designed, as Rosen wrote in an article

in the *Bulletin of the History of Medicine*, "to secure for the monarch and the state increased power and wealth." Since increased power and wealth for the state could often be obtained only at the expense of decreased health and freedom for certain citizens, we witness here a collision between the Platonic and Hippocratic medical ethics — the former easily triumphing over the latter. Rosen's summary of Johann Frank's work shows its undisguisedly Platonic character:

"Carrying out the idea that the health of the people is the responsibility of the state, Frank presented a system of public and private hygiene, worked out in minute detail. . . . A spirit of enlightenment and humanitarianism is clearly perceptible throughout the entire work, but as might be expected from a public medical official who spent his life in the service of various absolute rulers, great and small, the exposition serves not so much for the instruction of the people, or even of physicians, as for the guidance of officials who are supposed to regulate and supervise for the benefit of society all the spheres of human activity, even those most personal. Frank is a representative of enlightened despotism. The modern reader may, in many instances, be repelled by his excessive reliance on legal regulation and by the minuteness of detail with which Frank worked out his proposals, especially in questions of individual, personal hygiene." (*A History of Public Health*)

Among Frank's more interesting proposals was a tax on bachelors — this was a part of the medical police's effort to increase the population to provide more soldiers for the monarch — a proposal we have still not ceased implementing.

The French Revolution helped to further cement the alliance between medicine and the state. This is symbolized by the healer aspiring to perfect more humane methods of execution. In 1792, the guillotine — developed and named after Dr. Joseph Ignace Guillotin, a physician, member of the Revolutionary Assembly, and creator of its Health Committee (*Comité de salubrité*) — became the official instrument of execution in France. Again, revealingly, the first guillotine was assembled at the Bicêtre, one of the famous insane asylums in Paris; and it was tried out on live sheep, and then on three cadavers of patients from the asylum. After the first flush of enthusiasm for this medical advance wore off, Guillotin's contribution to human welfare was viewed, even in those days, ambivalently — leading him to

remark, in his last will, "It is difficult to do good to men without causing oneself some unpleasantness."

The ways in which the National Socialist government in Germany used, and Communist governments continue to use, medical knowledge and technology is familiar enough.

In our own day, in the so-called free societies, virtually every group or agency, public and private, has enlisted the physician as an agent of its particular interests. The school and the factory, employers and labor unions, airlines and insurance companies, immigration authorities and drug control agencies, prisons and mental hospital systems, all employ physicians. The physician so employed has a choice only between being a loyal agent of his employer, serving his employer's interests as the latter defines them, or being a disloyal agent of his employer, serving interests other than his employer's, as the physician himself defines them.

*The expert's allegiance  
to the agents  
he serves  
must be made explicit*

The principal moral decision for the physician who does not work in an ideal private-practice situation is to decide what organization or institution he shall work for; more than anything else, this will determine the sort of moral agent he can be to his patient and others. It follows from this that we should pay more attention than has been our habit to the ways institutions and organizations — whether the Central Intelligence Agency or the United Nations or any other prestigious and powerful group — use medical knowledge and skills. Although these considerations are simple, their appreciation is not reflected by what seems to me to characterize the recent burgeoning of literature on problems of medical ethics, especially as these relate to genetics. To illustrate this, let me quote two remarks from an international conference in 1971 on Ethical Issues in Human Genetics, devoted mainly to problems of genetic knowledge and counseling.

One participant, a professor of genetics in Paris, in a discussion of counseling parents who might give



birth to a child with Tay-Sachs disease, said: "I think the question is whether I would like to suppress a child or not. My simple answer is definitely not, because we have to recognize one thing which is very frequently overlooked: medicine is essentially and by nature working against natural selection. That is the reason why medicine was invented. It was really to fight in the contrary sense of natural selection. . . . When medicine is used to reinforce natural selection, it is no longer medicine; it is eugenics. It doesn't matter if the work is palatable or not; that is what it is."

There are two things seriously wrong here. First, this expert's remarks about the antagonism between medicine and natural selection are nonsense — and remarkable nonsense at that for a biologist to entertain and expound. Second, by speaking about "suppressing a child," this expert equates and confuses advising a parent not to have a child, performing an abortion, and killing an infant.

Another participant, a professor of sociology in Ithaca, New York, in a discussion of the "implications of parental diagnosis for the quality of, and right to, human life," said, ". . . the best way of expressing its [society's] interest is through the counselor-physician, who in effect has a dual responsibility to the individual whom he serves and to the society of which he and she are parts. . . . We will all certainly be diminished as human beings, if we are not in great moral peril, should we allow ourselves to accept abortion for what are essentially trivial reasons. On the other hand, we will, I fear, be in equal danger if we do not accept abortion as one means of insuring that both the quantity and quality of the human race are kept within reasonable limits."

If this is how the experts reason about the ethical problems of genetics, we are in a bad way indeed. The priest, the accountant, and the defense lawyer do not try to serve antagonistic interests simultaneously; the politician, the psychiatrist, and the expert on genetic counseling do. This at least, must be one of the preliminary conclusions of a survey of the present state of the art in the ethics of genetics.



I conclude by briefly summarizing my views on medical ethics in general, and on the ethical implications of genetic knowledge and engineering in particular.

The biologist and the physician are, first and foremost, persons; as persons they have their own moral

values which they are likely to try to realize in their professional work as well as in their private lives.

In general, we should regard the medical man, whether as investigator or practitioner, as the agent of the party that pays him and thus controls him; whether he helps or harms the so-called patient thus depends not so much on whether he is a good or bad man, as on whether the function of the institution whose agent he is, is to help or harm the patient.

Insofar as the biologist or physician chooses to act as a scientist, he has an unqualified obligation to tell the truth; he cannot compromise this obligation without disqualifying himself as a scientist. In actual practice, only certain kinds of situations permit the medical man to fulfill such an unqualified obligation to truth-telling.

Insofar as the biologist or physician chooses to act as a social engineer, he is an agent of the particular moral and political values he espouses and tries to realize, or of those his employer espouses and tries to realize.

The biologist's or physician's claim that he represents disinterested abstract values — such as mankind, health, or treatment — should be disallowed; and his efforts to balance and claim to represent multiple conflicting interests — such as those of the fetus against the mother or society, or of the individual against the family or the state — should be exposed for what they conceal — such as his secret loyalty to one of the conflicting parties, or his cynical rejection of the interests of both parties in favor of his own self-aggrandizement.

If we value personal freedom and dignity, we should, in confronting the moral dilemmas of biology, genetics, and medicine, insist that the expert's allegiance to the agents and values he serves be made explicit, and that the power inherent in his specialized knowledge and skill not be accepted as justification for his exercising specific controls over those lacking such knowledge and skill.

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# AGING IN THE AMERICAN SOCIETY

From a conference on media and aging,  
co-sponsored by the Gerontological Society and the  
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aging in the american society

# Prescribing the Role of Oldness Often Defies the Realities of Oldness

ALEX COMFORT

Aging in the Western world today is not a democratic institution. It should be, for it happens to all of us. The biological changes which impair our health and finally bring about our death with the mere passage of time affect all of us and have not changed in rate since the start of human history. We get old at the same age as Moses and Pharaoh. The only difference so far brought about by the advance of medicine and civilization is that now more of us — many more — survive to reach old age. The rate of biological aging, like other biological rates, can be altered, and most of us in the research field are fairly sanguine that it is going to be altered reasonably soon. A great stride in this direction has been taken with the setting up of the new National Institute of Aging, with the assignment, in simple terms, of developing ways of making it take seventy years to reach sixty.

But aging is not only biological, it is also socio-genic. The role of oldness is not biologically fixed, it is something prescribed by society, and our society prescribes it foully. This country by reason of its big immigrant population has always been a youth-oriented culture, and never more than now. If you decree that once achievement is over, so is worth, if you prescribe that older citizens must retire at an arbitrary and decreasing age and condemn them to poverty, and if you then repeat often enough that older people are ineducable, unemployable, asexual, unintelligent, and as the Greeks say "a burden to the soil," you will generate some of the problems which the older citizen now faces. It is no wonder that the over-sixty-five group have come in America to resemble an underprivileged minority — but this is a minority we are all going to join.

It is also a growing minority. By the year 2000, more than twenty per cent of Californians will be over sixty-five. These new old — who, let me remind you, are going to be us — will be very different from those now old. They will be higher in expectation, better protected against the mythology of useless and valueless age, more militant, and a lot less willing to have laid on them the sort of garbage which is laid

on the old today. They are going to be a sizeable and vocal audience.

Media are very important to the old, as they are to all of us. The old are big users of radio, of television, and of the press: as a lifeline, as a source of information and enrichment of their environment (something which in itself combats social deterioration with age), and as a substitute defense against the loneliness which many experience as their chief problem. Media can inform not only of current events but of rights and facilities; they can entertain; they can activate and educate. No group in society is in greater need of continuing education than the retired and about-to-retire, who face an identity crisis imposed by society and who need new skills to handle it. Media, however, also address the whole citizenry and can project a true and a valuing image of what aging is and is not. They are therefore crucial in correcting the sort of black magic which has been generated about the useless, brainless, sexless old.

There are problems. Not only are older people too experienced to make a good advertising target, but they are very diverse (as all people are), and, until recently, unvocal, so we don't know what they want or how best to supply it. We would like to find out two things: what questions we need to ask so that media can serve the old, and how we can answer those questions. Our aim is to better the service they receive, and also to correct society's attitude toward aging.

The Center for the Study of Democratic Institutions is interested in the study and actualization of the inalienable rights set out at the start of American democracy, rights on which the old have much too long been shortchanged. We have a great opportunity to use modern technology to correct this bias. Media can address people who are cut off by illness, isolation, or simply fear of the streets and of getting mugged, from full participation in citizenship. For these people, the television, the radio, and the newspaper may be the only friends they have, and the only sources of enrichment and information available.

This responsibility is being taken up, but we want to see it taken up better and faster, and to that end we need research.

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aging in the american society

# Resources for the Aged Reflect Strongly Held Social Myths

CARL EISDORFER

It is almost impossible to talk about the problems of the aged unless we talk about the problems of people more broadly defined. The aged are people and, from maturity on, become less and less alike. Thus "the aged" are actually the most heterogeneous group in our population.

We see some aged persons who are intensely intelligent, capable human beings involved with the problems of their time. We see others living on the edge of a vegetative state.

Aging — a unilateral process for the living — is a bio-psycho-social phenomenon. We have really only begun to understand the biological processes of aging, and we need much more research in this area. Not only are some of the professionals who work with the aged insensitive to the need for biological research, but we appear to have a government which has been almost totally unaware of the tremendous needs in this field.

The 1971 White House Conference on Aging was in one sense a success, and for totally unexpected reasons. As part of the preconference research, two hundred thousand older people were polled. In the process, many useful contacts were made with older people, literally dozens of programs on aging were broadcast on local radio and television stations, and countless stories on the older people appeared in the press.

But, to keep this in perspective, the total budget for extramural aging research in the United States in fiscal 1972 was two and a half million dollars. That was not enough to continue the research already funded, and it meant that out of every hundred grants on research in aging, only one was being supported with federal money.

It is clear that there is a "politics of aging." At the same time that we have a broadening popular understanding of aging — spurred by White House conferences — there is an undercutting by the federal government of funds for fundamental research on the subject.

Regarding the psychology of aging, I have already stated the interesting fact that, statistically, the variance in psychological experiments increases as a direct function of age. The notion that adults, by virtue of arriving at a certain age, such as sixty-five,

all fall off the edge and become senile and incompetent is both ludicrous and frightening. It is frightening because, like any other group that bears the weight of discrimination and the deprivation of resources by the rest of society, a rationalization takes place among the members of the older group — a rationalization that, in effect, accepts for itself the evaluation put on it by the larger society. In one sense the most destructive part of the white society's bigotry against blacks in this country was not what the whites did to blacks, but what blacks did to themselves in terms of self-stereotyping and self-resentment. In my view, the black-is-beautiful concept was the single most important thing to come out of the civil-rights movement. Blacks began to recognize that blacks are not lazy, are not stupid, and do not all tap dance.

The older person in our society must realize that it is not at all clear what aging does to people psychologically. Until about five years ago, psychologists thought that there was an inverse relationship between age and intelligence. Actually that view can still be found in most undergraduate and graduate psychology textbooks. But in 1973, the task force on aging of the American Psychological Association in effect discarded that notion, not because of social consciousness (which would have been the wrong reason), but because the data on which the notion was based turned out to be wrong. When I was a youngster, everyone thought that intelligence peaked at age fourteen because the Stanford-Binet intelligence test in those days was used to measure the intelligence of youngsters, and it simply stopped measuring accurately after adolescence. Then, just before World War II, David Wechsler came along and standardized his tests at Bellevue in New York. The subsequent Wechsler-Bellevue intelligence scale, which peaks at age twenty-one, is the first adult intelligence scale.

When Wechsler got a bit older he revised his tests to the now well-accepted Wechsler Adult Intelligence Scale. That one peaks at twenty-six or twenty-seven and goes down from that point.

The data are right, but the interpretations are usually false since they are based on a cross-sectional study. The mistaken assumption is that an individual's intelligence will continue to develop until his mid-twenties, and that he will go downhill from that point on longitudinally. It's reminiscent of our college courses in developmental psychology in which we spend six months worrying about the first three or four years of human life; then we devote two weeks

to adolescence; and, after that, well, lots of luck — by implication it has all happened — as if we were some sort of bullet or shell whose target velocity and trajectory were determined in the early moments of propulsion.

We've learned to do this culturally with our "superfluous people." These are people for whom we have no use and about whom we have very little information, and so we act as if they do not exist, and we mediate resources to them as if they do not exist. Then we must justify our behavior and so we close the circle by maintaining that they cannot utilize resources because they don't have the competence.

The change in our understanding of the intelligence of the older people came after a half-dozen longitudinal studies were made. That is, a cohort, a group, of older people was followed for a period of ten years. At Duke University, we studied a sample of people between the ages of sixty and sixty-nine, and we fully expected that their intelligence would drop off after ten years. But with one notable exception, their intelligence, after ten years, was undiminished. The one exception was those persons who had significantly high blood pressure: they showed a drop in intelligence.



That raises another issue. When we talk about aging, do we really mean sickness? The aged are more likely to be sick than are younger people. But being old and being sick are two quite different things. Unfortunately, too many of us are guilty of the correlative fallacy which assumes that if two things are correlated — for example, if aging and sickness are found in the same people — there is an etiology. We assume that aging causes sickness, and that the two are somehow synonymous.

Aging is, of course, a process that is associated with a number of losses — "associated with," not necessarily etiologically related. What are the losses of aging? They say you can't teach an old dog new tricks. That's garbage. Not only is it not true of dogs, it does not apply to people. Older people do learn and some learn well. As a group they have several interesting properties. The current older group of people were not nearly as well-educated as are the majority of Americans. A decade or less ago, there were approximately a million functional illiterates in the older group. These were largely people who were never educated.

But older persons can learn. Their main disability as observed by some psychologists is that they tend to become more physiologically upset in the learning system and more reluctant to venture possible wrong responses than are younger persons. As a result, the older person gives the appearance of not learning. Older persons in our culture are so accustomed to being put down that they want to be secure; they would rather risk appearing ignorant by not answering than answer and be wrong.

So, the learning strategy of the older persons tends to be different. But that strategy can be changed if you tell older people it is all right to make mistakes. They need a cultural system that says, "Yes, you can act in a different way." The point is that the notion that older people are unable to learn is a socially mediated notion. If we believe, for example, that only children can learn, the social consequences of that belief are clear. We proceed to put virtually all of our educational resources at the disposal of children.

A wise society prepares its people for their whole future, not a part of it. The average life expectancy for a white male American born today is about seventy-two years of age. The white American male who reaches sixty-five can expect to live to seventy-seven or seventy-eight. For a woman, it is even longer — women live four to six years longer than men in this country.

This situation is full of social ambiguities. If we have a child with leukemia, for instance, how much of our resources should we spend to keep that child alive for, say, five years? That is a tough question, but most of us would err on the side of saying, "Let's pull out all the stops to keep him alive. Maybe there will be a cure for cancer in five years." Historically, that is the way our society has been answering that question. We do pull out all the stops. We are sympathetic; all we have to do is close our eyes and picture a leukemia ward for children.

It is a little more difficult to think about nursing homes and the older persons in our society and to make sound judgments about the resources we should deploy for these people. It is a fact that if nursing homes and homes for the older persons are made into places for dying, people in them tend to die very rapidly. If they are made places in which to live, if we develop programs for the living, then people in them tend to live longer. Such data have been known for ten years now, but for some reason nobody has made use of them yet.

The biological, psychological, and social variables



in aging are interrelated; they affect and are affected by each other in profound ways.

About five per cent of our aged population — that is, about one million out of twenty million aged — are in full-term custodial care. The U.S. Senate's Special Committee on Aging recently produced a report, researched and written by Val Halamandaris, which is a heavy indictment of nursing homes in this country. Nursing homes alone are a problem that deserves many television documentaries. The Senate hearings describe nursing-home staff administering drugs on a plate to whoever the staff thinks can be made more quiet by them; nonexistent medical care; lack of therapeutic or activity programming; and the fact that this kind of care of the aged is costing taxpayers about four to five billion dollars a year, money that could be used in so many better ways for the older people.

But the indictment is not of the nursing-home industry. Nursing homes only reflect the prevailing society. As I have suggested elsewhere, if saving money is our only objective, we could save more simply by following Kurt Vonnegut's suggestion in *Welcome to the Monkey House*. He handles the aging problem very simply. He pictures, next to some restaurant, such as a Howard Johnson's, a parlor where people can go between their sixty-fifth and sixty-sixth birthdays and have their lives terminated. Vonnegut's parlor is staffed by attractive men and women skilled in discovering the best method to do away with people. Sometime before a person's sixty-sixth birthday he walks into this future Howard Johnson's, gets a free meal, then walks next door and, against a background of soothing music, has the death of his choice.

Of course, an alternate solution would be to begin by recognizing why older people are with us. They are with us because they are people. If you separate out twenty million older human beings, call them superfluous, develop a set of concepts about these older persons which have little or no basis in reality, and then systematically cut them off, you have compromised all people. What is at stake here is the whole value structure of a society.

What are the problems that the older people themselves say they have? The first problem most of them mention is insufficient money. That is not surprising. All of us, regardless of age or income, feel our income is inadequate.

But for older people, this happens to be largely true. Insufficient money is indeed a cruel problem. Anyone on a fixed income is in serious trouble during a time of protracted inflation such as we are now experiencing. Older people need money, and since they are often at the bottom of our economic ladder, a lot of older people need a lot of money. The National Council on Senior Citizens, the American Association of Retired Persons, the National Retired Teachers Association, and others have accomplished a good deal by forcing the country and Congress to take a hard look at Social Security and the Supplementary Security Income program.

I might add that while we do need a careful re-appraisal of the system, some of the attacks being made on the Social Security program in the media are ill-informed and destructive. Many critics of Social Security do not know what they are talking or writing about. Some have managed to frighten a lot of older Americans who are not themselves too well-informed about Social Security, how it was instituted, and how it works. Several groups are now very carefully addressing the problem. This is a subject that could be the basis of a most useful documentary on television, because everybody — not just the older citizens — is interested in what happens to the money they have been paying into Social Security and how the benefits are paid.

In addition to money, health is a critical problem for older people. More than half the older population is suffering from some illness or impairment. If you define "older Americans" as those sixty-five and older, then three-quarters of them are suffering from some chronic disease. But the term "chronic disease," as used by a physician, can be anything from arthritis to hemorrhoids. So simply saying that somebody is "chronically ill" does not tell us much, nor does the term "suffering" help much in that phrase.

Of more importance, about thirty-seven per cent of older people say they have some disability in work or leisure activity due to poor health. But then, people of all ages have some disability. Anybody who must wear eyeglasses has a disability. The question is, what can be done to minimize a disability and to maintain a level of functioning? This is a largely untapped area vis-à-vis the aged.

In New York City and other urban centers, a principal problem expressed by older people is neither money nor health; it is the violence. Older New Yorkers fear being mugged, robbed, beaten, or murdered. They feel a need for protection.

Another problem of the older person is the fear of



a prolonged, chronic, deteriorating illness. Older people are much more afraid of that than they are of dying. Younger people fear death. Older people fear being dependent and incapacitated.



What can be done about these and other problems associated with aging?

I have said that as long as we continue to devote almost all of this nation's educational resources to children and youth, we will continue to have a prob-

lem, not only with regard to the older people, but all up and down the generational line. Today, medical students know that ten years after they leave school, much of their knowledge will be outmoded. Lawyers realize that they must constantly keep up with the law. Accountants are going back to school to study changes in tax law. We live in an extraordinary time in which knowledge is coming at an extremely rapid rate, especially in technologically developed countries such as ours. To limit the investment of educational resources is to insure obsolescence and the creation of a subgroup cut off from the mainstream. Here the

media could play a role for which they are particularly qualified.

I believe that it is absurd to think that educating and/or training people from roughly the age of six to the age of eighteen — or, at most, twenty-six — will give them an adequate educational base for the next forty to sixty years.

In a sense, aging is a less serious problem in the less developed countries for several reasons. First, people die at a younger age; second, there is a transmission of relevant knowledge from the old to the young in those societies; third, often the aged control or own the resources. In a less developed country — usually an agrarian society — someone who has been farming for sixty years is, all things considered, a better farmer than someone who has been farming for forty years; that is, until the information-base changes. In a developed society, if you were a trolley-car conductor, for example, and the city switched to buses, you probably could not make it and would be given “early retirement.” Changes in production technology in a developed society will have a similar effect.

Another difficulty facing all people in our society is fear about what aging may be like. A recent study of a thousand people in the Pacific Northwest was focused on the issue of preparing for retirement. Most of those studied were upper-middle-class technicians between the ages of thirty-five and sixty-five. Ninety per cent of them said their income was not adequate. But when these same people were asked in a different part of this quite elaborate questionnaire whether they thought they had an adequate retirement income in prospect, eighty-six per cent of them said, “yes,” despite the fact that their present “inadequate” income would be cut by more than half when they retire.

This illustrates an incredible denial of what it means to be old in our society. I try to point out to older folks that people tend to spend more when they are no longer busy at work.

We use the figure “sixty-five” as a social convenience to designate the “older” person. But there is no reason why any other age cannot be adopted. People can now retire at sixty-two under Social Security if they agree to take a little less money per month. The United Auto Workers will retire people at fifty-five if they promise to leave the auto industry.

About five years ago, a group of economists reported to a Senate subcommittee that the present economic structure in this country — as projected over the next quarter of a century — would not be

able to sustain blue-collar workers for more than twenty years. Blue-collar workers will have to get out of the labor force after twenty years to make room for new workers. If they began working at age nineteen, they would be retired at age thirty-nine, and that will be the new entry point into aging. Sounds stupid, silly, absurd — except that about a year ago an officer of the A.F.L.-C.I.O. said that more than sixty per cent of the union’s members had either retired before age sixty-five or had contracts that would retire them before that age.

A Banker’s Trust study of eight and a half million workers in the greater New York area stated that the retirement contract of forty years is dead, the contract of thirty years is becoming a thing of the past, and that we are now seeing twenty-year retirement contracts. So the absurd predictions of five years ago are becoming the realities of today.

We will have to develop a new mentality about forty-year-olds, because if we cling to the concept that “older people” are superfluous, I predict that we will adopt the same attitude toward forty-year-old retired people as we have adopted toward today’s sixty-five-year-olds. The younger citizens will say that forty-year-olds are incapable of learning; they will be denied access to long-term health care because it is too expensive to be wasted on older people. Forty-year-olds will begin to shift their psychology from a need-achievement mentality (which got us to where we are today, because it says it is important to try and that there is a basic need to achieve) to a self-protective, defensive mentality based on a fear of failure. The culture will no longer be dominated by people aged thirty-five to fifty; it will be dominated by those who are thirty to thirty-five, because the thirty-five-year-olds will be only five years from retirement.

Most of our society’s behavior toward its older people is based on rationalizations that are mental garbage. For several years, we have been receiving a soft-sell message. Presumably it has something to do with another problem, but it really has to do with aging. If you look at our soft-drink bottles, you will find embossed the legend, “No deposit — no return.” That message has really got across, and it is one that must be counteracted. How can that be done?

First, we must educate older people about a variety of things. The educational process itself is terribly important. Exercising one’s cognitive function is as important as exercising one’s heart. If it is not

exercised, there will be the kind of cohort effect I mentioned earlier.

Second, older people, typically, are deprived of services, some of which are available but of which they are ignorant. They must be kept informed.

Third — and this is a major issue — the attitude of the dominant part of our society about getting old, together with the denial about what it means to be old, must be changed. Actually the chances are nineteen to one that when you are old you will still be mentally alert, involved, active, rather than winding up like a vegetative patient in a nursing home. I have been trying to persuade people that there can be a joy in aging and that many old people are happy, particularly those who prepared for this stage of their life.

Fourth, and this is related to the point I just made, what kinds of investments can we make so that one's older years will be an exciting and creative period in one's life? No one has touched this problem, but it can be met if we give it the attention and economic support it must have. For example, what can we do to prevent some of the deterioration of aging? How much of it is preventable? What are useful roles for older persons to play? How can we foster creativity?

The most important thing we can do is to break out of this whole business of denying the realities of aging and the fear of what aging involves. I recently attended a conference on death and dying. One of the most salient things that came out of that conference — which was made up of about 125 health-care professionals, nearly all of whom had worked with dying patients — was that most people who are dying are comfortable in talking about their death, they want to talk about their death. They are not nearly as depressed about the fact of their impending death as are the people who are taking care of them and who cause "the problem" by running away from the issue. That is really where we are now with aging and the fear and ignorance of aging.

Older people are increasing in number at a faster rate than younger people. By the end of the century, we will have twenty-nine million older Americans. Older people are a tremendous untapped resource in our country. The question is whether we will merely create a larger pool of "superfluous" human beings out of our older citizens or integrate everyone into the total society.

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aging in the american society

# Commercial Television's Calculated Indifference to the Old

HARRY S. ASHMORE

It seems to me that the newspapers and magazines are doing about as good a job of reporting the facts about the condition of the aging as they are in any comparable area. That is not a satisfactory job, by my definition. But, considered over-all, I do not think the print media are guilty of special discrimination against the aging in their news columns, their editorial comments, or their investigative reporting.

The situation is different in the majority medium — television.

Television is a game of demographics. What the demographics demonstrate, at least to the satisfaction of the advertising men who determine the style, if not the content, of most programming, is that the older age group is not a very good source of purchasing power. Its income is, of course, reduced; its needs for material goods presumably are largely satisfied. At least it is reasonable to assume that the aged are only peripherally in the market for automobiles, furniture, perfume, foundation garments, appliances, or the other goods television sells with great success.

So the conventional wisdom of Madison Avenue is that the primary broadcasting market ranges across the unmarrieds, the young marrieds, and the middle-aged who still think young, or at least would like to appear as if they did. The result is foreordained, since the primary users of TV advertising are interested in reaching the largest number of potential customers per dollar invested. There are exceptions, one of the most notable being the high incidence of denture glue advertising on the networks' evening news programs. Some computer somewhere apparently provides evidence that a merchandisable segment of old people look in on Walter Cronkite and David Brinkley.

In considering the problems of the aging as they relate to TV, the beginning fact is that, as presently organized, the medium is simply not capable of supplying programming to meet any special minority need. Our reliance in the United States on the marketplace as the source of broadcast income means that a common denominator of programming must prevail. Whether they guess right or wrong, broadcasters try to put on programs that will reach the

maximum number of people at any given time, because that is the basis of their advertising rates. The result is almost universal redundancy. There are exceptions, but over-all you find the same *kind* of programming as you flip the dial from station to station and network to network. The result has been a steady de-emphasis of the information function and a corresponding trivialization of what is called in the trade "news and public affairs broadcasting."

There is still time available for programming in this category, but the line that once set it off from entertainment is blurred. The television documentary form has been systematically trivialized because it did not turn out to be economically profitable. The ratings demonstrate that documentary treatment, in its original, serious journalistic format, does not appeal to audiences of the size broadcasters can attract with entertainment programs. The result has been a shift away from treatment of public affairs in depth toward what is called a magazine format. The broadcasters thus can balance any serious treatment of social issues by abbreviating it and incorporating it into a variety of light subject matter. This meets the standard of entertainment while still keeping the form of information, and attracts and holds a larger audience than does the serious, single-subject documentary.

In sum, then, the economic base of commercial broadcasting tends to eliminate most programming — whether entertainment or information — designed especially for a minority audience. It was hoped — and to some extent the hope has been realized — that the creation of a fourth network, a noncommercial public service broadcasting service, would fill that minority demand for specialized programming. Undernourished and imperfect as it is, I am confident that public broadcasting will survive and expand, because it does fill a real need.

Beyond that, for the last five years we have lived in the hope that a great technological breakthrough was in sight with the advent of cable television and the development of cassette playback systems. Cable TV, now coming on strong in the major cities, does have the capacity to open up a virtually limitless number of additional channels, creating a situation in which a variety of programming could be designed to serve special-interest groups of relatively small numbers. Cable TV also has the potential of opening the visual medium to communication by ordinary people, rather than, as at present, limiting it to professional communicators.

Neither of these potentials has been realized. The

technology is here, so this kind of development is possible and still may happen. But, like almost every other initiating agency involved in our communications system, the cable companies are wholly commercial, and they are afflicted by the same kind of thinking that limits conventional broadcasters. Instead of trying to exploit the possibilities for diversity, the cable TV people tend to rely primarily on relaying what is already available on the air, selling their service on the basis of providing a clearer picture. They are talking now about piping in a few first-run movies and sporting events—in other words, more of the same, with a direct admission charge in lieu of (or more probably, in addition to) advertising revenue.

Having stated the limitations, I remain unclear about what kind of television older people should have if these limitations did not exist. Certain aspects of the problem are obvious. Older people need information about services that are now available for them, and support in the effort to bring their plight

to the attention of the public and private agencies responsible for meeting their special needs. But then there remains the matter of programming that might fill the void of aching loneliness that exists in the long days and nights of the elderly. This means, I think, programming of the sort now classified as entertainment. But what kind of entertainment?

I don't have the answer, but I make bold to pose what I believe to be a central question: Is it really desirable to think of special cultural programming for the old? Wouldn't that be another way of further segregating them from the larger society? Would it not further emphasize the fact that they now constitute our latest set of social outcasts, so much so that they require special intellectual treatment at the end of their lives? Is the function of television to detach them finally from reality as they are ushered out of this vale of tears?

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*Mr. Ashmore is the executive vice-president and a Senior Fellow of the Center.*



## USING THE MEDIA TO CHANGE SOCIETY

The media can be the best means of mass communication and consciousness-raising yet invented, especially when you have little money to spend bringing your ideas to the public. So take advantage of them if they invite you to an interview, a talk show, or other special-interest event. . . .

The second thing that we have learned about the media is that they can rip you off. The people of the media are always looking for ways to feed their programming. Do not let them take advantage of you. Too much publicity when you are not ready for it is as difficult to cope with as too little when you need it. You may never be able to control the rate and flow of media interest, but do not let them misrepresent your organization. Do not let them box you in and use you for something you are not. You are not merely a human interest story about "active senior citizens." You are a potentially powerful coalition of

young and old. Your focus is not to arouse curiosity but to create human action and power to change society. . . .

The current fascination of the media with the "senior citizen" may pass. We must not confuse this enthusiasm, which may be temporary, with the very real, frightening, and continuous age-ism which we find everywhere in our society. We must point to the older citizen who is "in" with the media and to the younger individual who is not "in," for both are victims of this age-ism. The problems of youth may not be so apparent as those of the older adult, but they are just as real: minors are as dependent on the legal system and bureaucratic agencies as are older adults.

*From the organizing manual of the  
Gray Panthers,  
3700 Chestnut Street,  
Philadelphia, Pennsylvania 19104*



aging in the american society

*An interview with Maggie Kuhn*

# Gray Panther Power

*M*argaret E. Kuhn — everyone calls her “Maggie” — is sixty-nine and the diminutive leader of the Gray Panthers which she helped found in 1970 and which now numbers about eight thousand members. She received her Master’s degree at the School for Applied Social Science at Case Western Reserve University in Cleveland, and did additional graduate work at Temple University and Union Theological Seminary. Her first job was with the Y.W.C.A. — first in Cleveland, then in Philadelphia — where she became interested in the working and living conditions of low-paid women workers in offices and department stores. Ever since, she has been involved in organizing people for social action. As “convener” of the fifteen-member steering committee of the Gray Panthers, she helps interested citizens organize Gray Panther units in their own communities; testifies in government hearings on legislation for the older citizens; makes films on the problems of the older people; takes part in nonviolent “street theater” demonstrations dramatizing the plight of the infirm elderly in our society; and helps produce the Gray Panthers Network, a newsletter that serves as both forum and tie-line for members of the organization. Ms. Kuhn was interviewed by Donald McDonald during the conference on media and aging.

*Q: Ms. Kuhn, why did you organize the Gray Panthers?*

KUHN: There were six of us in the greater New York area who were either just retired or about to retire in the spring of 1970, and all of us were concerned with the war in Indochina. We wondered how, after we retired and were more or less isolated, we could do anything in the way of protest. We had been playing a supportive

role for both the young people who were being drafted and those who were resisting the war and who were being jailed and hassled by the police when they demonstrated and who were getting a rough time from their draft boards when they tried to get any kind of alternate service. We thought, why not form a coalition of the young and the old? Both groups suffer discrimination on the basis of age alone. We also wanted to use our new free-

dom in retirement, we wanted to use our experience, skills, and time to tackle some of the issues and problems that make our world unjust and inhuman.

*Q: Who are the young people in your organization?*

KUHN: For the most part they are students — college undergraduates, university graduate students, and, in some communities, high-school kids.

*Q: How do you keep the organization together?*

KUHN: Through our newsletter and through attending meetings of local groups. We believe in the network principle. The network is built largely by our own personal connections. No matter how an organizational chart is put together — with boxes, lines, dotted lines, flying arrows — it all comes down to a network of human relationships. We build the network, these relationships, by the newsletter, by publicity, by moving around the country and speaking to local groups. We are finding people all over the country who want to be in a network like this and to form their own group.

It's rather like cells multiplying themselves.

*Q: How do you initiate contacts with potential members or local networks?*

KUHN: In various ways. Here is a good example. The American Baptist Churches in Valley Forge have selected for their national emphasis a three-year focus on age. Recently they sponsored a four-day training conference in Kansas City, an excellent area which includes two large medical schools, a university, several seminaries. I was invited to speak at the conference, so I accepted and used the opportunity to call a meeting of Gray Panther members and prospective members from five surrounding states. We had seventy-five people at our meeting, leadership people who said they wanted to get started in the Gray Panthers. We brought organizer-conveners to the meeting from Denver and Chicago to show them how to organize. We have no dues. We depend on contributions. People contribute to the national group to receive our various materials, including the newsletter. Also, local groups raise their own money as needed.

*Q: What is the purpose of the Gray Panthers?*

KUHN: Our major objective is to challenge and eliminate age-ism in our society. We define age-ism as an arbitrary discrimination against someone or some group on the basis of age — any age. Such discrimination happens to be very hard on both young people and old people. Age-ism traps people in derogatory categories.

*Q: What forms does age discrimination take?*

KUHN: One of its worst effects is compulsory retirement. We challenge compulsory retirement. We say that people deserve to have an option. They should be able to retire early if they wish. They should be able to retire at a later time, if they wish. The retirement age should be flexible; it should be something that can be negotiated by the workers themselves, if they desire. A third option they should have is the freedom to take on a new kind

*“We would like to see the energy, time, experience, and accumulated skills of older Americans released and put to work for social change and social justice.”*

of work, say, a second, or even a third, career. All of these would be positive responses to the age factor.

*Q: Are most people unable to function well in retirement?*

KUHN: Some people who have worked hard in routine jobs all their lives are glad to be relieved of their drudgery and be able to just sit and fish if they like. But research needs to be done even in these cases. When these people are forced to retire, we don't know whether retirement becomes an oppressive and diminishing thing in their lives unless they have some redirection of their purposes and energy.

*Q: What other goals do the Gray Panthers have?*

KUHN: We would like to see the energy, time, experience, and accumulated skills of older Americans released and put to work for social change and social justice. We want to develop a life-style of advocacy for the other. For example, although we may tackle things that oppress the elderly, often, at bottom, these same things are causing hardship and injustice for all people. Take the case of mass transportation. Lack of adequate mass transportation is particularly hard on old people who cannot afford a car or who are no longer able to drive one safely. But the lack of transportation is really tough on young people, too, who are not old enough to drive or cannot afford cars. And it is tough on black people who may live in one part of the city far from jobs, health and welfare services, and recreational facilities. If you can dramatize

such an issue for the older citizens, who are a rapidly growing part of our society, you have at the same time a powerful lever for change, one that can open things up for other groups.

*Q: In one of the documentary films on the problems of the older citizens, you say that a major problem among these people is their self-hatred and self-disgust. What is the cause of that lack of self-esteem?*

KUHN: Powerful conditioning forces in our society make a fetish of looking young and keeping up youthful appearance — that is one factor. Another — and this is related to the emphasis on youthfulness — is the matter of sexuality. The older person thinks of himself or herself as no longer attractive sexually. Well, if sexuality is a basic aspect of human life, and it is, and if we no longer think we are attractive to others and can no longer interact with them, that lowers even further the regard we have for ourselves. I am not talking necessarily about cohabitation and the sex act. I am talking about affection, closeness, friendship. If we are conditioned to hate ourselves, naturally we will find it impossible to think that someone else would want to be a friend of ours or be close to us.

*Q: Where do these images come from?*

KUHN: They are found in our culture as a whole, and, of course, in our mass media and advertising industries which both shape that culture and reflect it. They come very directly, too, from what I call the Detroit syndrome — the practice of building in obsolescence.

ence into our automobiles and throwing the old models away. Well, that is a powerful force for making people obsolescent too.

*Q: If the distinctive mark of personal achievement in a society is how much a person can contribute to the gross national product and how much he or she can consume — that is, buy — of that gross national product, then the older citizen who is no longer able to do much of either will obviously be thought of as a liability rather than an asset.*

KUHN: Precisely. The whole system tends to be rigged against the older person.

*Q: Doesn't that raise a profound question? In order to change a society's attitude toward the older person, must you not change its basic value premises?*

KUHN: Yes, and, of course, there are no instant answers. It will take a long time to turn our society around.

*Q: What is your group doing about it?*

KUHN: Our first strategy — which we borrowed from the women's liberation movement — is to raise the consciousness of the older persons. We let people express their self-hatred and then we help them come to grips with what it really is they are doing and why they are doing it. They begin to see that such attitudes are a rejection of themselves. For instance, when older people lie about their age, they are wasting their experience. Through consciousness raising, we help people get a different understanding and respect for themselves and their experience.

One of the ways both the old and the young can gain a deep respect for the experience of the old is through oral history, through tape recording interviews of older persons by young people. We have found that young people are tremendously interested in such a project. And, of course, old people, when they are asked by a young interviewer to recall their past and their achievements, begin to gain a new, positive respect for themselves. They themselves begin to marvel at

what they have lived through. It is a very self-affirming experience for an old person to be asked by a young person what he or she has learned in life.

*Q: Have the Gray Panthers engaged in this oral history work?*

KUHN: Yes. First it was done in a casual way. Young people brought their tape recorders to older people, some of whom were living alone at home, some in institutions and nursing homes. Now it is being done in more organized fashion. Two Bryn Mawr College students, for example, are working for their degrees in social work in the Philadelphia area, and they have devised a schedule of interview questions and have taken their tape recorders into a retirement community in the Swarthmore area. These young people discovered a rich mine of experiences among the older people, and they have got it all down on tape. Another student took her tape recorder to the Jewish Home for the Aged and had a marvelous summer interviewing these older people.

*Q: What other strategies have you devised to get at the value system in our society?*

KUHN: We are doing social analysis — some writing and thinking that tries to analyze our present human situation, to look at the forces in our society that are unjust, and to see if we can determine where leverage can be exerted for social change. We perceive, for instance, an interlock between the built-in obsolescence and galloping technology which has displaced people and destroyed institutions, creating and accelerating changes that cannot be encompassed by human beings without a lot of social disorder, dislocation, and destruction. We have published these analyses in a series of *Gray Papers*.

We also try to demonstrate a kind of social criticism in the way we live. We adopt a life-style that rejects the idea of just throwing things — and people — away.

*Q: What is your view of commercial retirement communities such as we have out here in California and Arizona?*

KUHN: A community consisting exclusively of old people is not really living. Isolating older people from the rest of life and from any kind of interaction with society, well, that is just a plastic world, not a living world.

*Q: Why do some of the elderly people prefer to live in these retirement communities?*

KUHN: Partly because the alternatives are sometimes even less attractive. These places are absolutely safe; they have walls, locked gates, guards. People are afraid to live in our cities. Partly it is because these communities are a manifestation of the profit motive: the retirement-community developers have a great thing going for them. They have made a whale of a lot of money, and I am told that the people who have bought into them find it extremely difficult to get out. The assumption of most people is that they are moving into Paradise when they move into one of these developments. But when one spouse dies, or when a long-term illness hits, these places certainly cannot cope and they were not set up to cope with that kind of situation.

*Q: In a society in which the extended, two- or three-generation families no longer exist, what is the alternative to the "Sun Cities"? Grandmas and grandpas who are not welcome in their children's homes must live either in one of these retirement communities or, more often because of economic reasons, in a seedy hotel room in the central cities.*

KUHN: I've been involved in a different kind of housing effort in Philadelphia, one that would be a congregate living arrangement on a cooperative basis. It would have old people and young people living in the same facility, with certain parts of the facility used in common. It would have people of all ages, but with a concentration of people sixty and older and youth, the student population.

*Q: How close are you to developing such a community?*

KUHN: We have a committee and a board incorporated under the laws of

the Commonwealth of Pennsylvania — it's called the Corporation of Sixty-five — and we have completed a feasibility study which shows that, from a market standpoint and from a land-use standpoint, the land we have in mind, which is owned by one of the churches, could be developed for such a facility. It would be in the University City area of Philadelphia where lots of students live and where, interestingly enough, a number of old people live. The market is there for housing, and it is also there for small shops, for a service and advocacy center, and for a referral and information center to serve both the students and the older people.

*Q: What is holding it up?*

KUHN: The moratorium on federal housing funds, plus the high interest rates on mortgages. Those rates, as you know, are fantastic. We've been halted in our tracks. The money to build this facility is so costly that the rents we would have to charge would be out of the reach of the very people who most need this service.

*Q: What are some of the major practical problems for older people?*

KUHN: Housing is a major problem in all of the metropolitan areas. The Quakers in Philadelphia have tried to meet this by setting up what they call "life centers." The Jews have also. Several of our Philadelphia Gray Panthers now live in one of these Quaker life centers. The Quakers sold some valuable pieces of land in downtown Philadelphia, and with that and some other capital they invested in a number of big old houses in Philadelphia — sixteen-, eighteen-, twenty-room mansions that have come on the market in recent years. They have renovated and remodeled these old homes and made them into attractive, multiple-unit places peopled by a new mix of persons. In one of these life centers, there is a young divorced woman with her three little children, several students, and the rest retired older people.

*Q: What are the practical arrangements in such a setup?*

KUHN: It is a cooperative arrangement.

*We say that people who are  
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Their very weakness can be a strength.*

All live on a communal basis, each pays what he or she can afford into a common purse. They take two meals a day in common, and they share the work of keeping the place up. They meet once a month. There is a mixture of religious persuasions, but there is a voluntary, Quaker-reflected style of worship in which people come together for meditation and quiet.

*Q: Is this idea growing?*

KUHN: The Quakers now have a group of people looking for such properties as they become available at a reasonable price. Let me tell you a little more about these centers. While the residents in each of these old homes form a tightly knit community, the homes themselves form a larger community, what they call a "movement for a new society." Within this larger community, there are people who can provide almost any service the members need. There are several retired nurses; there is a retired certified public accountant who keeps the books; there are lawyers; there are a couple of students who have a pickup truck and do light moving for the residents; there are handymen, people who can do simple electrical, plumbing, and carpentry repairs.

*Q: How many people live in this larger community-of-life center?*

KUHN: There are about 150 now.

*Q: Are the older person's problems of living less acute in rural areas and small towns than they are in the metropolitan centers?*

KUHN: There are certain comforts and safety factors in the small towns. Street crimes, of course, are almost unheard of in rural areas. On the other hand, there is a terrible geographical isolation in the rural areas because of the lack of cheap public transportation. And some of the services that people need — medical care, for example — well, rural people are under a heavy handicap in that regard.

*Q: Have the churches generally taken a lead in trying to provide for the older people?*

KUHN: It is a little hard to generalize. But I think the kind of thing going on in Philadelphia could proliferate. My own has been a church background, and I have served on two national Presbyterian boards. Right here in Santa Barbara, I was interested to learn that the Unitarian Universalist Church has been operating for several years on the premise that the congregation is a new extended family. They are trying to build a community of concern for their members, to provide the kind of familial support and affection that people used to receive in the extended family. Unfortunately we don't have good neighbors anymore, dependable neighbors. Too often, a local religious congregation reflects this anomie, this lack of community. But certainly the germ, the spirit, is there in the religious groups; perhaps humans have not responded to it yet, or not in sufficiently large numbers. I do believe that the churches and synagogues of America could get a new lease on their own congregational life if they began to see the need for doing

something about the need for community.

*Q: I take it that poverty is an ever-present major problem of the older person. Do most simply not have enough money?*

KUHN: Yes. I know that in my own case, my retirement income is half what I earned when I was working. And I have a better Social Security income than do many people. Also I have a very good pension from the Y.M.C.A. retirement fund: I began contributing to that almost from the beginning. Still, as I say, my income is half what it used to be.

*Q: Is the United States any better, or worse, than other countries as far as the condition of the older persons is concerned?*

KUHN: I can't answer that with any kind of completeness. One of our Washington group did spend some time a year or two ago in Sweden, and she reported that the health care system and living conditions in general were quite wholesome there. She found very little isolation of the aged. The same thing, to a degree, exists in Denmark. But in France the old people fare badly. A social geographer from the Sorbonne spent some time with us on several occasions and indicated that conditions were bad in his country. A journalist, visiting us from Zurich, informed us that in some parts of Switzerland the old extended family is still intact. Several newspaper people visited us from Tokyo to find out what is being done with and for the elderly in our country, and they informed us about some of the monstrosities in Japan, nursing homes and the like.

*Q: Nursing homes apparently are anathema. But what can the older persons do if they are not able to care for themselves but are not sick enough to be hospitalized?*

KUHN: Our organization received a small grant from the Presbyterian women to do an action study and form a citizens' monitoring guide to improve nursing homes and develop some recommended alternatives to institutional

care, to see what can be done to maintain and rehabilitate people in their own homes.

*Q: Recent newspaper stories have been revealing some of the rip-offs perpetrated by nursing-home operators. Even Medicare in some areas has been sabotaged by unscrupulous doctors for their own profit.*

KUHN: You see, though, all this goes back to the value system in our society. If profits are the main thing, then you provide only those services that are most profitable.

*Q: It seems to me that the elderly fare better in the so-called backward, or less developed, societies around the world. Is that true?*

KUHN: In some ways, yes. I hope that we can get some further insights from other societies. We have had some remarkable conferences with Africans, people from Uganda and Kenya. In those societies the elders of the tribe still have status; they still have input into the governance and life of their tribe. They are still concerned with the tribe's survival and well-being. It is accepted and expected that the elders will behave that way. The experience of the elders is necessary to the survival of those people. In our society, that is not accepted by very many of our citizens.

*Q: How long do you plan to continue the work you are doing?*

KUHN: Until I die.

*Q: Or until you are physically not able to do it, which may be long before you die?*

KUHN: Listen, even in our weakness and in our sickness and disabilities, we have strength. So much is made of physical health and beauty and vigor, as if anyone who does not have these cannot do very much. In the Gray Panthers we say that people without physical health and vigor can be an important part of the radical critique of our society, that their very weakness can be a strength. A year ago, we merged with the Retired Professional Action Group that Ralph Nader or-

ganized in Washington under his "Public Citizen" rubric. One of his operations looked into the nursing homes and the hearing-aid business. Fifty million people — most of them older Americans — have hearing problems, and the hearing-aid business has become quite a rip-off. Physicians have virtually abandoned the deaf to the hearing-aid dealers. And who is making the money? The dealers of course. They are profiting from the weakness of old people. But who can be the powerful agents of change in this situation? The deaf, the very victims of the oppression. People suffering this physical disability can use their disability as a lever for social change — in this case, to change the way hearing aids are priced, marketed, advertised, and distributed.

*Q: Your point, then, is that you will literally work until you die, using your sickness or disability, if any, as a lever for social change?*

KUHN: Precisely. Here is an even lovelier illustration of how one can use one's weakness as a strength. We have poor mass transportation in Philadelphia. The Gray Panthers were involved in several public hearings with the transportation authorities in Philadelphia. Now in order to get attention in such hearings, you have to create something of a fuss. The person who did the most to shake up the members of the transportation authority in Philadelphia was one of our Gray Panthers who, as a matter of fact, died about six weeks after this incident. This woman was suffering from lupus, a strange disease that attacks the blood vessels and the nerves. At the present time it is incurable. Her legs were perfectly awful, bleeding, ulcerated; there were big lesions that never healed. She came down to the mass transport hearings with all her baggage, including a wooden box that was the exact height of the first step on the buses in Philadelphia. And she demonstrated very dramatically how it was impossible, in her condition, to get on the bus. She could not lift her foot to that first step.

Nobody forgot that testimony. That woman might have stayed at home with the excuse that she was sick and in pain. But she didn't. 20

BARRY COMMONER

# The Energy Crisis—All of a Piece

We live in a time of unending crises. A series of grave, seemingly intractable problems clamor for attention: degradation of the environment; the rapid growth of world population; the food crisis; the energy crisis — rapidly mounting calamities that may merge into a worldwide economic collapse. And, overshadowing all, war and the threat of war.

As each crisis rises to the top of the public agenda, we try to respond: the environmental crisis is met by pollution controls; population growth by attempts to control fertility; the energy crisis by efforts to control demand and to develop new supplies; the economic crisis by proposals to control consumption, wages, and prices; the threat of war is met by a patchwork of negotiations.

But each effort to solve one crisis seems to founder on conflict with another: pollution controls are blamed for the shortage of energy; population control conflicts with the need for economic development; energy conservation leads to unemployment; proposals to feed the hungry of the world are condemned as inflationary; in the growing economic panic we hear cries against almost any effort to alleviate all the rest; and already there are those who seek to end all these problems by incinerating them in the flames of war.

All this seems to be a dismal confirmation that the world is staggering toward catastrophe. But the very links that make up this web of crises are themselves a source of optimism, a clue to what needs to be done. The close connections among them suggest that all these problems are symptoms of some common fault that lies deep within the design of modern society. The energy crisis is so closely linked to this pivotal defect as to offer the hope that it can become a guiding thread which, once seized, can lead us out of the labyrinth. In this sense, the energy crisis signals a great watershed in the history of human society. What we do in response to it will determine, I believe, for the United States and for every nation in the world, whether our future continues the progress toward humanism and democracy, or ends in catastrophe and oppression.



When engineers want to understand the strength of a new material they stress it to the breaking point and analyze how it responds. The energy crisis is a kind of "engineering test" of the United States' economic system, and it has revealed a number of deep-seated faults.



THIS ARTICLE AND  
THE ONE FOLLOWING  
ARE FROM A CONFERENCE ON  
"THE ENERGY OUTLOOK AND  
GLOBAL INTERDEPENDENCE,"  
SPONSORED BY  
THE FUND FOR PEACE  
IN COOPERATION WITH  
THE SCIENTISTS' INSTITUTE  
FOR PUBLIC INFORMATION

Although energy is useless until it produces goods or services, and although nearly all the energy that we use is derived from limited, nonrenewable sources which will eventually run out (all of which pollute the environment), we have perversely reduced the efficiency with which fuels are converted into goods and services. In the last thirty years, in agriculture, industry, and transportation, those productive processes that use energy least efficiently and stress the environment most heavily are growing most rapidly, driving their energetically efficient competitors off the market.

In agriculture the older, energy-sparing methods of maintaining fertility by crop rotation and manuring have been displaced by the intensive use of nitrogen fertilizers synthesized from natural gas. In the same way, synthetic fibers, plastics, and detergents made from petroleum have captured most of the markets once held by wood, cotton, wool, and soap — all made from energy-sparing and renewable resources. In transportation, railroads — by far the most energetically efficient means of moving people and freight — are crumbling, their traffic increasingly taken over by passenger cars, trucks, and airplanes that use far more fuel per passenger- or ton-  
le.

Naturally, such energy-wasting enterprises are threatened when the price of energy increases — the only real outcome of the illusory 1973 fuel shortage. If they were not so serious, some of these economic consequences could only be regarded as absurd. When the multi-billion-dollar petrochemical industry cheerfully bid up the price of propane — an essential starting material in plastics production — farmers had trouble finding the propane they needed to dry their grain, and then had to pay triple its former price. In order to sustain the surfeit of plastic trivia that gluts the modern market, food production was threatened. When, in response to urgent appeals, householders reduced their demand for electricity, the power companies asked for rate increases to make up for the lost business. Automobile manufacturers, having scornfully rejected environmentalists' appeals to produce smaller, more fuel-efficient vehicles, have lost about half their sales, throwing one hundred thousand auto workers out of work.

The deepest fault that is revealed by the impact of the energy crisis on the United States' economic system is not that we are running out of energy or of environmental quality — but of capital. As oil wells have gone deeper, petroleum refineries have become more complex; power plants have given up the reliability of coal- or oil-fired burners for the elaborate, shaky technology of the nuclear reactor, and the capital cost of producing a unit of energy has sharply increased. The projected production of total United States energy is expected to rise from about 57,000 trillion Btu in 1971 to about 92,000 trillion Btu in 1985 (an increase of about sixty per cent) and requiring that annual capital expenditures for energy rise from about \$26.5 billion to \$158 billion over that period — an increase of about 390 per cent. This trend, coupled with the growing inefficiency in the use of energy, means that, if we follow the present course, energy production will consume an increasing fraction of the total capital available for investment in new enterprises including factories, homes, schools, and hospitals.

One projection, based on present maximum estimates of energy demand, indicates that energy production could consume as much as eighty per cent of all available capital in 1985. This is, of course, an absurdly unrealistic situation in which the energy industry would, in effect, be devouring its own customers. Thus, the compounded effects of a trend toward enterprises that inefficiently convert energy into goods and services and power plants that inefficiently convert capital into energy production threaten to

overrun the economic system's capacity to produce its most essential factor — capital. This may well explain why, according to a recent New York Stock Exchange report, we are likely to be \$650 billion short in needed capital in the next decade. The economic effects of the increasingly large proportion of available capital that would need to be tied up in this vast enterprise would be broadly felt by society. For example, according to the recent New York Stock Exchange report, in order to assure the availability of capital, the following changes are called for: "... corporate tax rates should be adjusted to permit increased accumulation of funds... tax exemption for reasonable amounts of capital gains... excessive regulation and restrictive controls (especially in the utilities industry) should be relaxed... environmental standards should be modified, with target dates deferred."

The report acknowledges that federal tax revenues will be reduced, but proposes to match this deficit with a reduction in federal expenditures.



What has gone wrong? Why has the postwar transformation of agriculture, industry, and transportation set the United States on the suicidal course of consuming, ever more wastefully, capital goods and nonrenewable sources of energy, and destroying the very environment in which we must live?

The basic reason is one that every businessman well understands. It paid. Soap companies significantly increased their profit per pound of cleaner sold when they switched from soap to detergents; truck lines are more profitable than railroads; synthetic plastics and fabrics are more profitable than leather, cotton, wool, or wood; nitrogen fertilizer is the corn farmer's most profit-yielding input; power companies claim that capital-intensive nuclear plants improve their rate of return; and as Henry Ford II has said, "minicars make miniprofits."

All this is the natural outcome of the terms that govern the entry of new enterprises in the United States' economic system. Regardless of the initial motivation for a new productive enterprise — the entry of nuclear plants into the power market, of synthetics into the fabric market, of detergents into the cleaner market, or of trucks into the freight market — it will succeed relative to the older competitor only if it is capable of yielding a greater return on the investment. At times, this advantage may be expressed as a lower price for the new goods, an

## THE POLITICAL LUXURIES

...to survive the environmental crisis, the people of industrialized nations will [not] need to give up their "affluent" way of life.... This "affluence," as judged by conventional measures — such as G.N.P., power consumption, and production of metals — is itself an illusion....

There are, however, certain luxuries which the environmental crisis and the approaching bankruptcy that it signifies will, I believe, force us to give up. These are the *political* luxuries which have so

advantage that is likely to drive the competing ones off the market. At other times, the advantage may be translated into higher profits, enabling the new enterprise to expand faster than the older one, with the same end result.

Some economists believe that private enterprise can adapt to the rising price of energy by turning to energetically efficient productive technologies in order to save costs. Where this can be accomplished by reducing the waste of energy within a given enterprise it may well succeed. But in other cases — for example, the petrochemical industry — the intensive use of energy is built into the very design of the enterprise in order to eliminate human labor, thereby raising labor productivity and the resultant profits. In these cases improved energetic efficiency can be achieved only by rolling back the rapid growth of such inherently inefficient industries — but, for that very reason, these are precisely the industries that are most profitable. Any attempt to reduce their level of activity would necessarily encroach on the profit yielded by the economic system as a whole.

Another possible adaptation is to pass the extra cost of measures that conserve energy and reduce environmental stress along to the consumer. Thus the energy dependence of agriculture could be reduced by cutting back on the rate of application of nitrogen fertilizer, with the inevitable result that the price of food would rise. This would place an extra burden on the poor, which, in turn, might be rectified if the principles of private enterprise could accommodate measures that would remedy the growing gap between the rich and the poor. Once more, this is a challenge to the basic design of the economic system.

In a sense there is nothing new here, only t

long been enjoyed by those who can benefit from them: the luxury of allowing the wealth of the nation to serve preferentially the interests of so few of its citizens; of failing fully to inform citizens of what they need to know in order to exercise their right of political governance; of condemning as anathema any suggestion which reexamines basic economic values; of burying the issues revealed by logic in a morass of self-serving propaganda.

BARRY COMMONER

(From *The Closing Circle*, Bantam Books)

recognition that in the United States' economic system, decisions about what to produce and how to produce it are governed most powerfully by the expectation of enhanced profit. What *is* new and profoundly unsettling is that the thousands of separate entrepreneurial decisions that have been made during the last thirty years in the United States regarding new productive enterprises have, with such alarming uniformity, favored those which are less efficient energetically and more damaging to the environment than their alternatives. This is a serious challenge to the fundamental precept of private enterprise — that decisions made on the basis of the producer's economic self-interest are also the best way to meet social needs. That is why the environmental crisis, the energy crisis, and the multitude of social problems to which they are linked suggest — certainly as an urgently-to-be-discussed hypothesis — that the operative fault, and therefore the locus of the remedy, lies in the design of our profit-oriented economic system.

Comparable claims of service to the public welfare are, of course, made by the Soviet and other socialist economic systems, and insofar as such systems are based on social rather than private decisions regarding the design of the productive system, these claims may, at least in principle, be justified. However, when we look at the recent practice of the Soviet Union and certain other socialist countries we see a strange tendency to acquire from the United States and other industrialized capitalist countries, precisely the productive technology that has driven these countries down the path of wasteful consumption of energy and capital. After all, when Fiat automobiles are produced in Moscow they can be expected to use as

much gasoline and emit as much pollution as they do in Rome. And when the petrochemical complexes that are so largely responsible for the wasteful, environmentally destructive use of energy in the United States are imported by Russia, Poland, and even China, they will certainly impose these same pernicious hazards in their new locations.

We are all aware, of course, that neither capitalist nor socialist societies will lightly tolerate inquiries that question the basic roots of their economic systems. The environmental crisis, the energy crisis, and all the difficult, interwoven social issues to which they are linked is an urgent signal that it is time to give up this taboo. Surely, those who are convinced that private enterprise is in fact the most effective way to live in harmony with our resources and the natural world now have an unparalleled opportunity to make their case and to convince a troubled citizenry that there are ways, within the context of that system, to right its grave faults. And for those who see in the present situation opportunities to support socially oriented ways to organize our productive and economic enterprise, there is an equally important challenge to prove their case.

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If we pay heed to the basic facts about the production and use of energy, we can begin to find a rational way out of this tragic and absurd state of affairs.

To begin with, we now know that we can readily squeeze out of the productive process much of the wasted energy that has been devoted, not to the improvement of human welfare, but to the replacement of worthwhile and meaningful labor by the cheaper and more tractable alternative of energy. A number of studies have shown that in the United States the nation's energy budget could be reduced by about a third in this way with no significant reduction in the standard of living. Every unit of energy thus saved is reduced in its environmental impact to zero and relieves the pressure for hasty adventures into dubious and dangerous power technologies such as the breeder and fusion reactors.

In their place we can turn to solar energy, which has none of the faults that promise to cripple the present energy system. Unlike oil, gas, coal, or uranium, solar energy is renewable and virtually free of untoward environmental effects. Unlike the non-renewable sources, which become more difficult and costly to acquire as the rate of their use increases,

the use of solar energy is readily extendable at no loss in efficiency. The capture of one sunbeam, after all, in no way hinders the capture of the next one. Only solar energy can avoid the capital crunch which promises to paralyze the further development of the present energy system. Finally, solar energy is uniquely adaptable to different scales of economic organization. A conventional power plant now typically requires an investment approaching one billion dollars. In contrast, many solar collectors can be constructed in a range of sizes suitable for everything from a single household to an entire city.

The myth that solar energy is impractical, or too expensive, or in the realm of future technology is easily dispelled by a series of recent analyses done for the National Science Foundation. For example, a project, based on installing readily constructed solar-heat systems in the nation's housing, could readily reduce the United States' energy budget by twelve to fifteen per cent, at a cost that could be recovered in the form of fuel savings in ten to twelve years.

Thus, we are at a crossroads. Along one path lies the continued consumption of fossil fuels by productive enterprises that waste energy for the sake of extracting maximum profits out of labor; the continued pollution of the environment; an escalating scramble for oil, which, as it diminishes in amount, will inevitably become an irresistible lure to military adventures. Along this path lies the increasing expansion of the size of power units, even beyond the present billion-dollar size, so that the chief prerequisite to power production will become a huge accumulation of wealth. In a country such as the United States, this will mean that our energy system will fall increasingly under the domination of a few huge, wealthy corporations. In the world at large it will favor the rich and the powerful nations as against the small, poor nations that are struggling to develop.

Finally, along this road as the fossil fuels are exhausted and nuclear reactors begin to dominate the energy system, creating a plutonium economy that ties power production directly to the violence of nuclear weapons, the threat of terroristic thefts — whether real, or not — can be used as a pretext to establish a system of military "protection." Already a recent report to the Atomic Energy Commission calls for elaborate military protection of power plants, together with domestic espionage and all the other trappings of fascism — all in the name of enabling the operation of a nuclear energy system.

The other path relies on energy conservation and

the sun. Full use of existing methods of capturing solar energy for heating and cooling could remove fifteen to twenty per cent of the need for fossil fuels. By this means, together with feasible measures to conserve energy at no expense to the resulting goods and services, within perhaps the next decade about one-half of the present demand for energy from conventional sources could be deleted from the national energy budget — a step that with sensible planning could readily permit us to phase out the operation of most of the existing nuclear reactors.

Meanwhile, with a research and development effort that would be quite modest relative to the expenditures that have been devoted to the development of nuclear power, the technology for the economic production of solar cells for the production of electricity could be reduced to practicality. (According to a recent government report such a program could, by 1990, establish economical solar-powered electric stations for cities of one hundred thousand.) Given the wide flexibility of solar power units with respect to size, they could then be adapted to enterprises of any size and degree of centralization that seem socially desirable. Such changes could take place in small, graded steps, avoiding the huge accumulation of capital necessary to create conventional power stations. In this way a nation's power system could be made to serve its own particular needs, reversing a situation now frequently encountered in which the huge size and centralized location of power sources often dictates what can be produced. Energy can then more readily serve social needs, rather than create them.

And finally, through the wide use of solar energy and other alternative sources such as geothermal energy, the energy system can be separated from nuclear weaponry and freed from the dead hand of military control.

Consider, now, the implications of these alternatives for international relations. If the industrial countries follow the conventional path, they will have little to offer in the way of useful energy technology to the developing nations, which lack capital, are rich in natural materials and labor, and are usually favored by intense sunlight. In contrast, if the industrialized countries were to develop new productive technologies that emphasized the use of natural materials — synthesized from solar energy through photosynthesis — rather than synthetic ones, and techniques for

solar power, they could provide real help in the struggle of the poor countries to develop their economies. This is the kind of help that would enable developing countries to increase both agricultural and industrial production, and to raise living standards to the levels that encourage the motivation for self-limitation of fertility.

If we take this path we can begin to find also new ways to harmonize the needs of industrialized and developing nations and to end the growing trend toward the creation of opposing camps of nations that produce and use natural resources. For example, if for the sake of environmental and energetic sanity, the industrialized countries were to cut back on the production of synthetic substitutes for natural materials such as cotton, their needs could be met, in part, by goods produced from such natural products in developing countries. Thus, Malaysia, for example, may wish to supply the industrialized nations not with natural rubber, but with tires; India may wish to supply not cotton, but finished fabrics and even clothes; West Africa may wish to supply the world not with palm oil, but with soap.

Perhaps the most immediate threat that has been generated by the energy crisis is the growing menace of a catastrophic worldwide economic collapse. International trade and monetary relations have already felt its heavy force, and the impact of the sharply rising price of energy has begun to disrupt industrial and agricultural production in both the rich nations and the developing ones. Here, too, a rational approach to the production and use of energy is a key to restoring the stability of world economic relations, without which no nation can hope to serve the needs of its own people.

If for the sake of the world's ecological survival we undertake the massive reconstruction of the economies of both the industrialized and developing nations, clearly we are faced, as well, with equally sweeping political changes. Thus, it is inconceivable that the United States could find the huge capital resources for the needed reconstruction of industry and agriculture along ecologically sound lines unless we give up not only capital-intensive forms of energy production but also our preoccupation with large-scale military activities.

But such a course would not only erode the economic motivations for war, it would also give us good grounds for ridding the world — at last — of the most dangerous means of modern war, nuclear weapons. This new course could halt the spread of nuclear reactors and, with it, the proliferation of

nuclear weapons; and it encourages the existing nuclear powers to eliminate their own stocks of these insanely suicidal weapons.



All this is described neither as a blueprint of the future nor as a panacea for the ills of the world. I am aware that, stated in these simplistic terms, this picture does not take into account the numerous difficult obstacles that lie along the path to environmental and energetic sanity and peace. Rather, these views are put forward as a kind of exercise that is designed only to demonstrate the crucial role — for good or evil — that energy plays in determining our future. It shows, I believe, that we cannot hope to develop, either in an industrialized country such as the United States, or in the world as a whole, a rational system of production or an economic and social organization that fosters democracy and peace unless we do understand that the irrational production and use of energy is a fatal obstacle to this goal.

The energy crisis has become the world's most dangerous political issue as it wrenches back into open view the brutality of national competition for survival, the basic faults in existing economic systems, and the tragic absurdity of war. The crisis forces us to make long-avoided choices. If ecological sanity demands the sharp curtailment of power consumption and the production of synthetics and built-in obsolescence, where in society will the necessary controls be localized? If nations must on ecological grounds become more dependent on each other's indigenous goods, how can we avoid the ancient evils of international exploitation?

The lesson of the energy crisis is this: to survive on the earth, which is our habitat, we must live in keeping with its ecological imperatives. And if we are to take this course of ecological wisdom we must accept, at last, the wisdom of placing our faith not in production for private gain, but for public good; not in the exploitation of one people by another, but in the equality of all peoples; not in arms which devastate the land and the people and threaten world catastrophe, but in the desire which is shared everywhere in the world — for harmony with the environment, and for peace among the peoples who live in it.

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RALPH NADER

## Who Benefits?

I have observed two interesting phenomena at public conferences. One is that speakers who represent conflicting interest groups always seem to present speeches that agree with each other. That is because they focus on common objectives: everybody wants peace, tranquillity, stability, and, in this case, energy supply. A second is that none of them recall something Adam Smith once said: "The end of all production is consumption." The test of any production system is how well it benefits consumers now and tomorrow. What we do with our technology today will affect generations of consumers to come.

In judging the government's energy policy, our criteria must be consumer input and consumer values.

There has to be an open information-gathering and distribution system. Without information, the public cannot respond, participate, make an input.

In testifying on its energy policy, American government officials admitted repeatedly before congressional committees that they did not have an independent capability of obtaining critical information about oil reserves, production, refining, distribution, marketing data; and they had very little information about conservation potential last year. But energy policy is critically reliant on timely and accurate information. The government's own estimates make

it apparent that its information about oil reserves is still much more speculative than it should be. It is now clear that we have far more than a generation's use of oil in our country. Estimates published in the *Wall Street Journal* indicate that we have about two hundred billion barrels of oil in our secondary and tertiary reserves in already exploited wells. And the Canadian government estimates that Athabaskan tar sands, now being exploited in small part by the Sun Oil Company, have about six hundred billion barrels of recoverable oil. Last year, our country consumed about six and a half billion barrels of domestic and imported oil.

Also, as the price of oil goes up and technology advances, our "reserves" expand, because the definition of oil reserves by the American Petroleum Institute is based on a certain price for a barrel of oil and on a certain level of technology. The A.P.I.'s last estimate was based on a price of about \$3.40 per barrel — a little out of date. The level of technology, which affects the estimation of reserves, was not fully probed at the press conference when the A.P.I. announced its estimate of reserves. Its next estimate will be released in the spring of 1975, something both the government and the public should watch for.

Nor do we have enough information about the

true cost of energy and power production. We are told repeatedly that nuclear power is cheaper per kilowatt hour than electric power based on fossil fuels. But nuclear power is subsidized in a variety of ways: in the development of its technology; in its enrichment process; in the waste-disposal costs; in the limited liability, by law, under the Price-Anderson Act, which is an insurance subsidy; and in the increasing government subsidy for protecting the whole nuclear fuel cycle from theft and shortage. If all these costs were taken into account, quite apart from the costs of radioactive spills (well documented) or any future nuclear catastrophe (which must be considered, given the Price-Anderson Act subsidy), nuclear power is not as cheap as we have been led to believe. And the rising price of uranium will make the percentage of oil-price increases modest by comparison.

Along with a lack of publicly revealed information and government information verified through independent sources, there is also overwhelming secrecy. Recently the new Energy Resources Council, headed by Interior Secretary Rogers Morton, met with the auto manufacturers to discuss ways of improving fuel efficiency of automobiles and the possible trade-offs between this goal, emission controls, and auto safety features. Despite citizen group protests that the federal Advisory Committee Act applied to such a meeting, and therefore it must be open to the public and the press, Mr. Morton refused to open it up. His refusal is now the subject of a lawsuit; but they did meet in secrecy.

Such secrecy permits, of course, an interlock between government officials and oil company executives. In that light, it is instructive to recall a statement by Mr. Morton, who told oil industry leaders at a White House briefing in 1973, "The Office of Oil and Gas is . . . designed to be your institution. . . . Our mission is to serve you, not to regulate you. We try to avoid it. I have tried to avoid regulation to the degree that I possibly can. . . . I pledge to you that the Department is at your service."

Mr. Morton was being more than polite; he was reflecting the historic fact that the Department of the Interior has long been an accounts receivable for the oil industry; it has long reflected an unconscionable conflict-of-interest pattern and the practice of recruiting important governmental energy policy-makers from the energy industry, particularly the oil industry.

This is real conflict of interest, not potential conflict of interest. For instance, not only do former oil

company executives occupy important positions in the Federal Power Commission, but, contrary to regulation, according to a General Accounting Office report, many F.P.C. officials are failing to file required financial disclosure statements and hold prohibited investments in such companies as Exxon, Texaco, Tenneco, and Pepco. The General Accounting Office also charged that the F.P.C. had acted improperly and made a sham of the regulatory process by extending the sixty-day emergency sales of gas at unregulated prices to as much as three hundred days. According to the G.A.O., F.P.C. Secretary Kenneth Plumb had granted extensions beyond sixty days to eight companies *that had not even applied for them*.

Another conflict of interest: the many officials in the Federal Energy Administration who were making policy and drafting regulations that benefited their former employers, knowing full well that they would return to these employers at higher executive levels.

One of the men hired by William E. Simon — and if the oil companies did not have Mr. Simon, they would have had to invent him — was Melvin Conant, an Exxon executive. Exxon was so happy to see Mr. Conant going to work at the Federal Energy Administration last winter that they gave him ninety thousand dollars in severance benefits to make it easier for him to afford to take a lower-paying government job. When asked about this severance bonus at a recent congressional hearing considering confirmation of Conant as Assistant Administrator for International Affairs, both the F.E.A. and Conant agreed that the bonus did not create a conflict-of-interest problem because of Exxon's long-standing policy of granting such bonuses to executives who left to take government jobs. A Justice Department opinion obediently concurred. This amounts to arguing that even if such a severance bonus creates a conflict-of-interest problem, it is all right because Exxon and the government have been doing it this way for twenty-five years. But even that excuse failed to hold up when Exxon officials were questioned by the Senate Interior Committee and revealed that, in fact, Exxon's decision about whether to give a severance bonus and the amount of the bonus is discretionary; that it is not uniform and is not determined by a set policy. Despite this admission, the Justice Department subsequently informed Senator James Abourezk that it saw no reason to change its opinion.

These are representative, not episodic, illustrations of the inherent conflicts of interest so recurrent and



intense that they have become institutionalized; they are beginning to be accepted in our society.

The F.E.A. is willing to sacrifice public interest to the interest of the oil companies — and, mind you, the F.E.A. has a public trust to protect the consumers. The F.E.A. has assigned 850 people to audit oil companies and insure that price controls are not violated. About 760 of these auditors are assigned to wholesalers and retailers; to date they have uncovered violations totaling about fifty million dollars. Meanwhile, only two auditors are assigned to each of the nation's top thirty oil refiners. A report from the General Accounting Office says, "Considering that many of the refiners are billion-dollar corporations with numerous subsidiaries and multinational corporations, it is not surprising that the auditors fall short."

Although G.A.O. investigators estimate that price violations by the oil refiners may total six billion dollars, F.E.A. auditors have caught only \$194 million of refiner violations to date. Of course, even when these overcharges are documented, the individual consumers who were fleeced do not necessarily get their money back. The F.E.A. uses several remedies to correct overcharges. It needs to be scrutinized to see whether, even after the government catches these overcharges, the average level of fuel prices is actually reduced.



Without information about the facts of the energy situation, with a great deal of secrecy, and with inherent conflicts of interest, it is not hard to predict that the policy of the government will be as it has been in the past, one that parallels that of the oil industry itself.

You cannot have innovation, competition, and consumer protection as long as you have the private energy cartel we have in this country. Our antitrust laws have been on the books for decades. They should be enforced, specifically by deconcentrating the oil industry, getting rid of the vertical integration which is possessed by no other industry that I know of, and, through the forces of competition, getting prices lowered.

When the price of foreign oil was set by the Organization of Petroleum Exporting Countries, the domestic U.S. energy cartel decided, as a matter of policy, that it would raise the price of every alternative form of energy, including domestic oil, to the level of the O.P.E.C. monopoly price for oil. The

prices would be raised not only on domestic barrels of oil, but also on equivalent Btu levels in other fuels; and this pricing program is proceeding according to schedule.

The oil industry is heavy in coal; coal is itself a concentrated industry. The price of coal in this country — and we don't import coal — has almost tripled in the last three years. In spot sales in some areas, it has quadrupled. The Tennessee Valley Authority, which can drive as hard a bargain as any big buyer, paid about twenty-eight dollars per ton in its most recent contract. A little more than two years ago, the price to T.V.A. was eleven dollars a ton.

The price of interstate natural gas has been regulated by the federal government for twenty years. During this time, the natural gas industry has grown and prospered; it now provides about a third of our energy consumption. The average price is about forty-five cents per thousand cubic feet. If Senator James Buckley and other oil-industry allies in Congress succeed in deregulating the Trade Bill, it will deregulate new interstate natural gas; within a year and a half at the most, the price will go from fifty cents to \$1.60 per thousand cubic feet. It is now selling intrastate in some areas — Texas and Louisiana — at \$1.30 to \$1.40 per thousand cubic feet because it is not regulated. How such price increases reflect cost increases is beyond comprehension. What it does reflect is the ability of one arm of the domestic energy cartel to boost its price to meet the "competition" of its other arm, because the oil industry obviously controls the natural gas industry.

I understand from Mayor Joseph Alioto of San Francisco that the oil companies are now trying to apply even to geothermal energy this principle — raising the price of all alternative forms of cheaper energy to the highest level. Incredibly revealing, Pacific Gas & Electric's geothermal contract with Union Oil has an escalation clause, raising the price of geothermal energy to P.G.&E. if the price of oil and gas increases. Solar energy is the one source of energy still beyond the grasp of the cartel.

Now this raises a very serious commentary on the structural rigidity of our investment situation in this country. Suppose, for the purpose of clarification, we hypothesize that someone tomorrow discovered an energy source which you could put in your home. It was one inch in circumference, it cost you twenty dollars, and it would last for one hundred years. Would this development thrill the oil industry? It would not! Because it represents a cheaper displacing form of energy that the industry does not control.



viously compatible with a deconcentration of political and economic power.

There are reasons why options of potentially abundant technologies have not been developed in recent decades. Technological abundance threatens the capital investment in relatively scarce technology. As Margaret Mead once said, solar energy's big problem is that it can be too cheap. This is reflected in the federal government's research strategy. The research budget for solar energy next year will be fifty million dollars; that is more than the government has spent on solar energy altogether in the past decade. But the investment in fission energy is running more than \$1.5 billion — much of that in the breeder reactor. The investment in nuclear fission light-water reactors in past years has been many billions of dollars. And investment in fusion is increasing.

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What determines how the research money flows? Is the criterion consumer benefit or producer benefit? For the most part, and particularly in the matter of nuclear power, the criterion is a combination of producer benefit and bureaucratic careerism. It is in nuclear power where the most fundamental energy problems of economics, environment, and alternative modes of investment are illustrated.

Solar energy in all its manifestations — radiant, thermal, wind, and tidal — is a form of energy that escapes the requirements of monopoly investment. The requirement of monopoly investment — and I use that term to mean shared monopoly, i.e., common, cartelized, or oligopolistic companies within an industry — is a source of energy that is possessed exclusively, is difficult to reach by others (you generally can't go out and dig for coal in your backyard), and is relatively finite. The fossil fuels meet those monopoly-investment requirements. But solar energy will be fought by the fossil fuel industry because the characteristics of solar energy are superabundance, limitlessness, prevalence all over the world, and a nasty capability of coming directly to your home, bypassing your friendly power utility and oil company.

Solar energy has another unique characteristic: it has a healthy deconcentration trait. In solar energy there is not a single massive complex technology. It can be managed and distributed without tremendous difficulty. This technological deconcentration is ob-

Nuclear fission and its second-generation breeder reactor development present the most unstable, most uneconomic, and most catastrophic levels of risk to humanity. The problem of nuclear power plants begins with a mass of radioactive material within a nuclear core that is two thousand times greater than the fallout of the Hiroshima weapon. The analogy to Hiroshima stops there. These nuclear power plants do not explode, but they are susceptible to human and machine error leading to catastrophic meltdowns, ruptures of transported radioactive materials, spread of radioactive materials, including deadly plutonium. The radioactive waste disposal problem remains unresolved. Furthermore, nuclear plants and associated technology are susceptible to theft, sabotage, and terrorism. In some areas of the country they are susceptible to natural occurrences such as earthquakes and tornados. The Atomic Energy Commission has licensed or was about to license reactors near or immediately over earthquake faults. The proposed Bodega Bay reactor, for example, was planned near the San Andreas fault in California until civic opposition stopped it. There have been

others — Indian Point in New York, and North Anna, Virginia.

Nuclear power is a potentially unstable form of energy. If you have five hundred oil- or coal-fired plants in the United States and one, say in Philadelphia, has a catastrophic accident and is destroyed, that will not greatly affect either the operation or public perception of other coal- or oil-fired plants around the country. But if there is one nuclear plant disaster and if it takes out a major metropolitan area with its deadly radioactive cloud, what are the American people going to say about nuclear facilities in their area after all the assurances by government and industry that the likelihood of such a catastrophe is one in a billion, that it is as likely as a meteor striking New York City?

The technology of nuclear power plants is intricately interdependent. One plant's fate depends on all of the others' fate. Dr. Alvin Weinberg, former director of the Oak Ridge National Laboratory, says that one nuclear disaster devastating a metropolitan area, whether by sabotage or accident, would spell the end of the nuclear program. We are dealing here with potentially hundreds of thousands of casualties, with the contamination of an area the size of Pennsylvania. This is not like a fire or an explosion which can be cleaned up and then it's "business as usual" after a few days. A nuclear catastrophe will wreak enormous human and property damage immediately and continue the damage for generations to come.

A puzzling question is why the financial industry has not awakened to the economic, administrative, technological, and risk realities of nuclear power. If one hundred of America's leading bankers and finance specialists listened for one day to eminent scientific critics of nuclear power — Henry Kendall, Harold Urey, John Edsall, George Wald, Hannes Alfvén, John Gofman, and many others — they would conclude that nuclear technology has no future.

It is a technology that demands human and mechanical infallibility, a level of perfection never yet attained by mankind. It is a technology that can throw this country into both a radioactive and energy crisis should there be a catastrophic accident. It is a technology that will require a mini-garrison state to safeguard its transportation, its reactors, its waste disposal; we will have to have elaborate personnel security checks, invasion of privacy, and a massive accumulation of dossiers to make sure that everybody who deals with it is beyond suspicion.

Dr. Ralph Lapp, a proponent of nuclear power, posed this question in his advice to the Illinois state

government: "Suppose someone called the governor's office, say in ten years, when nuclear power plants provide twenty-five to thirty per cent of Illinois' energy; this caller says that, unless the governor meets his demands and gives him Saskatchewan, a detonating device under a nuclear plant will go off at a certain time." According to Dr. Lapp, the only prudent course of action the governor could take would be to shut all nuclear power plants down immediately to reduce risk and to facilitate search for the bomb. How is that for an energy crisis, when, by 1990, Illinois may be relying on nuclear power plants for fifty per cent of its energy?

From what we can learn about the Soviet Union's nuclear power program, the Russians are behaving even more irresponsibly. The Russians' safeguards are not even up to ours. The only good thing about the Soviet Union's program is that it has not really got off the ground.



We need to look at this whole matter with the consumers' perspective and on a global as well as national scale. We must devise an energy policy based on consumers' needs, construct a scenario, and then compare that policy with one developed for the benefit of producers.

Those desiring to redefine the scale and the premises of modern technology would do well to read E. F. Schumacher's new book, *Small Is Beautiful*, and the magazine of his Intermediate Technology Development Group, *Appropriate Technology*.

Beyond that, here are some of the things that must be done to protect consumers:

The monopoly structure of the energy industry must be broken up. If a company produces coal, that is all it should produce. It should not also produce oil, uranium, and geothermal energy. Nor should any company control production, refining, transportation, and retail distribution of a particular form of energy. Imagine if the drug industry — which is no innocent — controlled the raw materials, production capacity, all doctors, and all pharmacies.

There must be mandatory conservation measures. How can a nation such as ours be taken seriously when its leaders talk about an energy crisis and an insufficient supply while it not is only wasting energy but using it gluttonously? Look at the World Trade Center in New York, which is designed to maximize

sales by the Commonwealth Edison Company. Look at the design of our new buildings — uninsulated, overventilated, overlit, overheated. Look at our automobiles — we are finally turning the corner. In 1974, Detroit-model cars averaged a trivial 13.5 miles per gallon of gasoline. The 1975 cars, allegedly, will average 14.5 miles per gallon! If we had cars averaging twenty-six or twenty-eight miles per gallon, we would save about fifteen per cent of our present petroleum consumption, reduce pollution, enhance consumer welfare, and fight inflation.

We must have a whole host of new federal policies. We cannot possibly leave the pricing of energy to a rigged market system dominated by private monopolies. If all price controls were removed tomorrow, the prices of every kind of energy would skyrocket to the O.P.E.C. level. Why the price of coal and natural gas has to go up in Btu equivalents to the cartel price of oil escapes many people who do not understand monopoly power. We must maintain price regulations of interstate natural gas until the industry is restructured completely. We must keep controls on domestic old oil. The oil companies already got a \$2.5 billion windfall in December of 1973, when the price of old oil was increased by one dollar per barrel. We must not allow our domestic energy reserves which now provide eighty-five per cent of our energy needs to go up to those levels: if there are financial strains on the economy now, what would they be if an additional twenty billion dollars in higher energy costs were laid on us?

The states have a role to play. They must be very cautious about accelerating the leasing of offshore oil and gas tracts. Even oil industry officials admit they do not have the equipment to start producing in these offshore areas. Many past corporate leases for oil and coal on federal land have remained unexploited. Why should more lands be leased in such large amounts, so precipitously, with so little public participation, and in a way that will further concentrate leasing power in the hands of the giant oil companies? Why not get independent producers into the picture? Even more basically, these lands are federal lands and belong to the people. The oil and gas will be found on these lands, so these fuels belong to the people. We should seriously consider developing an alternative supplier of last resort; the federal government should command the oil and gas resources found on our land, rather than engage in a massive giveaway which will further secure the

monopoly of supply and drive prices even higher.

Also, if the federal government does not begin giving energy-efficiency ratings to new appliances, autos, heating and cooling systems, the states must do so. The states can also issue energy-impact statements on the construction of major buildings, highways, public works projects, and electric power plants, the last being the biggest energy wasters of all.

Either ban or tax non-returnable beverage containers.

Reduce the use of cars by levying surcharges on downtown parking, and by car pooling.

We should make easily available low-cost financing for insulation and weatherproofing improvements in existing houses and apartment buildings. The states can lobby the federal government to do that; the states do not do enough of that kind of lobbying.

States can start models of alternative energy resources. When New York State, in the mid-nineteen-sixties, started an experimental research program to develop a safe automobile, that moved the federal government to develop an experimental-car program. New York did it with a three- to four-million-dollar budget and by subcontracting work to a Long Island aerospace company. Why can't the states begin experimenting with wind power and other sources of power that permit small-scale experimentation for eventual wide-scale application?

We must forcefully institutionalize the consumer perspective in Washington. We need a consumer advocacy agency staffed with engineers, economists, lawyers, accountants, health specialists who will challenge, provoke, and petition those agencies now making energy policy. We must get the facts out, stop letting the oil industry collect information for the government agencies. Such a consumer advocacy agency must have the power to take the federal agencies to court. A bill to that end passed the House by a margin of three to one in April last year but was blocked by a Senate filibuster which beat, by one vote, efforts to break it last September.

The test of any energy policy is how thoroughly it is discussed and then decided with the consumers' well-being in primary view.

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*Mr. Nader is the well-known consumer advocate.*



## FOLLOW-UP/A Precious Resource

### ROGERS C. B. MORTON

*Secretary of the Interior  
Washington, D.C.*

Like Rip van Winkle, Charles Reich's 1962 article finds itself in a far different world on awakening in 1975. Man has reached the moon, the National Park System has expanded from 192 areas to 287 areas, and public use of the parks has increased from ninety-nine million visits a year to 216 million.

The author's call for more public participation in natural resource decisions seems somewhat incongruous in today's environmentally attuned society. Wilderness hearings, environmental impact statements, legislation for strip-mine controls, Earth Day observances, the election of public officials on environmental platforms, and the proliferation of environmental centers, institutes, defense funds, councils, and coalitions proclaim public participation all over the land.

The 1962 article and others like it probably stimulated much of the public action of the last thirteen years. If the author overstated his case a bit as to federal agency secrecy, let us attribute it to poetic license. A gadfly for conservation causes must be allowed some latitude.

However, even in 1962 we ques-

tion that decisions of the National Park Service (N.P.S.), Forest Service, and Bureau of Land Management (B.L.M.) were "made in rooms insulated from the voice of the people." So far as the National Park Service is concerned, Congress had created as early as 1935 an advisory board on national parks, historic sites, buildings, and monuments to advise the Secretary of the Interior on prospective new areas and other park matters. By 1962, this board had been serving for a generation as an important link in providing the public an opportunity to contribute to national park policy.

We question also the statement that the agencies operated "largely without congressional direction, executive supervision, or public participation," and that thus "the people lack real control over the management of their own land." That statement does not apply now to the National Park Service, and it is doubtful that it applied in 1962. Anyone who has seen the N.P.S. director before a House Appropriations Subcommittee or a House or Senate Interior Committee in an atmosphere of concerned congressional involvement would sense the irony of such a statement.

The "executive supervision" charge is even more baffling. Anyone familiar with the history of the National

Park Service knows the close relationship of every Secretary of the Interior to the director of the National Park Service and the deep personal interest the Secretaries maintained in development and operation of the National Park System. The record shows that the Presidents also have maintained close personal interest in the parks. It is true that the parks have rarely — perhaps never — enjoyed such close attention as they now receive from the Assistant Secretary for Fish and Wildlife and Parks. In this sense, perhaps, the executive supervision may be at an all-time high.

The article readily acknowledges the three agencies' "high standard of dedicated professional service" in 1962. Since then, the National Park Service has broadened its executive directorate under the director to a deputy director, four associate directors, a deputy associate director, seven assistant directors, eight regional directors, a national capital park director, and more than 250 park superintendents with strong executive powers.

The author says, "There is no procedure by which the public can initiate proposals." Yet, at about the same time he was preparing the article, fiery public hearings were being held on the proposed Cape Cod

*Charles Reich's 1962 Occasional Paper on the government's management of the nation's forests was reprinted in the January/February, 1975, issue as our Second Edition feature, entitled "A Precious Resource." Copies of the article were sent to government officials entrusted with the responsibility for managing the forests, leaders in the lumber industry, congressmen, conservationists, and environmental reporters. We asked them to tell us in what ways, if any, the management of the forests and the participation of the American public in decisions affecting the forests have changed in the thirteen years since the Center first published Mr. Reich's paper.*



highway through the historic French Quarter of New Orleans in 1969.

The council has taken action in more than a thousand cases since the 1966 Act was passed. Hundreds of public meetings on threatened historic places have been held, including field meetings and public sessions before the full council.

The council failed in some cases, however, because it had not been empowered to take enforcing or punitive action. The council could do nothing to prevent construction of the observation tower that now looms over the battlefield and cemetery at Gettysburg National Military Park, for example, despite a highly adverse council report on the tower.

The National Environmental Policy Act of 1969 (N.E.P.A.), however, has more teeth in it. The Environmental Protection Agency (E.P.A.) is empowered to take swift action to halt anti-environmental activities by injunction. N.E.P.A. brings the public into the picture by requiring environmental impact statements (E.I.S.) for all land-use steps taken by federal agencies. Public participation is encouraged. Every E.I.S. is an explanation to the public of the environmental consequences of proposed government action. The statements are in the form of large, thick books about the size of a mail-order catalogue, often running five hundred pages or more.

A draft E.I.S. must be released to the public for review at least ninety days before the proposed action. The public then has the opportunity to add its comments, after which the agency has thirty days to make the entire hefty package public before taking final action.

The Council on Environmental Quality says the E.I.S. procedure has "opened to public participation many government decisions that were previously made informally and without prior public notice."

By December 1, 1974, the Department of the Interior alone had produced 694 environmental impact statements, 256 of them in final form, since passage of the Act. The National Park Service and Bureau of Reclamation are the most productive agencies, accounting for about thirty-five per cent of the total. The Park

National Seashore and were duly reported in national newspapers and magazines.

Across the continent, the superintendent of Olympic National Park, Washington, had marched down the park's ocean strip with well-known conservationists to protest proposed construction of an oceanfront road there. The road was never built. The same superintendent ended timbering in the park and blocked efforts to turn over parts of the Olympic rain forest to lumber companies. Was the author unaware of these responses to proposals initiated by the public?

Perhaps the article did help to bring about the broad public participation which the National Park Service and the Forest Service have received in implementing the Wilderness Act of 1964. To evaluate fifty-seven areas for wilderness lands by September, 1974, the National Park Service alone conducted ninety-five field hearings in twenty-five states. At least twenty thousand people (a conservative estimate) took advantage of this opportunity for public participation in a major decision-making process involving the public's lands. Their views and those of the organizations they represented were carefully weighed by the N.P.S. in recommending to Congress that 15.7 million acres (mostly forested land)

in forty-nine states be placed in the National Wilderness Preservation System.

In the National Historic Preservation Act of 1966, Congress provided for an Advisory Council on Historic Preservation, ten of whose members would be nonfederal. In addition to advising the President and Congress, the council is directed to "encourage . . . public interest and participation in historic preservation. . . ." The council's most important function is to review any federal or federally assisted action involving any place or object listed in the National Register of Historic Places, or determined to be eligible by the Secretary of the Interior. While the council has no approval authority respecting such federal activities, the comments must be taken into account by the federal agency.

Thus, when a nuclear power plant involving federal funding was to be built on the east side of the Hudson River in 1968 opposite Saratoga National Historical Park, the council was advised. The council found that the towering structure would be an aesthetic intrusion on the battlefield atmosphere and view. Reinforced by the council report, public opposition forced cancellation of the proposed construction. Similar action forced cancellation of plans for a waterfront

Service must prepare E.I.S.'s in connection with its park master plans, wilderness proposals, land acquisitions, and pollution controls — which helps explain its high production.

Congress and the land-use agencies have broadened public participation in other fields as well as through the wilderness hearings, the Historic Preservation Act of 1966, and the environmental impact statements. These three are among the better examples of action which provide the objective sought in Mr. Reich's 1962 article: that "one final right — the right to initiate."

We find the author's call for adequate public notice of major long-range plans in construction and land use well-founded and worthy of attention by all land-use agencies. Public service is a public trust. And more adequate public notice will strengthen both public service and the public trust.

In the last decade the Bureau of Land Management has implemented many changes in the management of the forest resources on the national resources lands. One of the most significant is the B.L.M.'s Western Oregon Allowable Cut Plan, which was adopted by the Secretary of the Interior in March, 1971, following a thorough review by the public.

Basically the plan calls for an intensive level of timber management consistent with the protection and enhancement of the environment. To assist in carrying out the plan, the B.L.M. adopted the guidelines set out in the March, 1972, Senate Public Lands Subcommittee, Interior and Insular Affairs Committee report entitled, "Clear-cutting on Federal Timberlands." The guidelines set policy for allowable harvest levels, harvesting limitations, acceptable clear-cutting practices, and environmental protection stipulations for timber-sale contracts. Based on the guidelines, the B.L.M. requires that a multi-disciplinary review be made for each sales area assessing the potential environmental, biological, aesthetic, engineering, and economic impacts.

Another major event of the past decade was the development of the Bureau Planning System. This system is a planning process that helps line managers blend diverse programs and

authorities into multi-use on-the-ground programs. Public involvement is an integral part of the planning process, and citizen involvement is mandatory throughout the planning effort. Environmental analyses are also an integral part of all Bureau Planning System components and procedures, which are designed to meet the requirements of the National Environmental Policy Act of 1969. In accordance with this act, the B.L.M. has just recently completed a draft environmental impact statement for the Bureau's national timber program that will be released to the public.

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**GORDON ROBINSON**

*Forestry Consultant  
Sierra Club  
San Francisco, Calif.*

I have read Charles Reich's article a number of times since it first appeared, and am profoundly discouraged to say that nothing of substance has changed in all the intervening years. The only hope I see of ever correcting the situation is for magazines such as yours to fully air the tragedy.

Your readers may be interested in my statement before Senator Frank Church's Committee on Interior and Insular Affairs on the subject of clear-cutting, in Washington, April 5, 1971. Since making that statement I have made detailed examinations of several other national forests and find the rate of cut grossly out of line in all of them.

STATEMENT OF GORDON ROBINSON:

Mr. Chairman: My name is Gordon Robinson. I reside at 16 Apollo Road, Tiburon, California. I am a professional forester, having received my education at the University of California in Berkeley. From 1939 until 1966, I was the principal forester for Southern Pacific Company, 65 Market Street, San Francisco. I set up and managed that company's sustained-yield timber-management plan on 730,000 acres of forest in northern California. These lands are composed of a variety of forest types,

mixed conifer, Douglas fir, Ponderosa pine, and true firs. They are being managed for income under selection and group selection systems of silviculture.

From 1966 to the present, I have been a private forestry consultant and my principal client has been the Sierra Club which I serve as staff forester. In a narrow sense I am representing the Sierra Club in my presentation. The Sierra Club has made it possible for me to do the research to document supporting evidence in my efforts to improve forestry in the United States. In a broader sense I represent a very large number of professional foresters who have been on the verge of despair for many years.

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The best kept secret in this period of great concern about the declining quality of our environment is the condition of our forest lands. Concern for our forests was the beginning of American conservation. Forests are the source of the bulk of our water, the home of our wildlife, the scene of most of our recreation, and the resource base of one of our largest and oldest industries. Yet, the forests of America have been relentlessly plundered ever since Europeans invaded the western hemisphere five hundred years ago. The destruction continues almost unabated today despite the contrary impression many people seem to have inferred from slick, nationally circulated tree-farm propaganda.

Nevertheless, during the past twenty years forest industries through their many and varied lobbying organizations have been vigorously campaigning, both through administrative and legislative channels, to require the United States Forest Service and the Bureau of Land Management to vastly increase the sale of timber from our public forests. The reasons they are giving now are that we have a critical housing shortage requiring low-cost housing which in turn ostensibly requires increasing quantities of wood. The private forests, they say, are gone and the only way we can meet the environmental crisis is to cut more timber from our national forests. If they had actually practiced forestry on their own land instead of



pretending, they would not be fighting for our public timber. Actually, however, the amount of timber cut annually in the United States has been roughly constant since 1900, and if prices are allowed to seek their natural level there is no reason to expect any great rise in the use of wood in the foreseeable future except possibly for pulp, and that increase, while of doubtful social value, can be easily met by the shoddy forestry being practiced in the South.

The industries' recent and continuing campaign for a National Timber Supply Act is evidence that the wood famine long predicted in this country has finally come to pass. Even worse is the revelation during the hearings on that proposal that over the last two decades the Forest Service has been yielding to this pressure by greatly increasing the sale of timber and is now grossly mismanaging the national forests. A parallel situation exists with respect to the Bureau of Land Management lands in western Oregon. It is very late to be taking corrective measures, but hopefully there is still time.

We must promptly restore the Forest Service and the Bureau of Land Management to their proper role of managing our federal forests under multiple use and sustained yield, and we must immediately enact effective legislation requiring good forestry on private lands.

In order to cope with the situation effectively, it is important to understand clearly what good forestry consists of. Where good forestry is practiced, the land usually offers a satisfactory aesthetic experience to the visitor. It consists of limiting the cutting of timber to that which can be removed annually in perpetuity. It consists of practicing a selection system of cutting wherever this is consistent with the biological requirements of the species involved, and where this is not the case, keeping the openings no larger than necessary to meet those requirements. Finally, it consists of taking extreme precaution to protect the soil, our all-important basic resource. This is multiple-use forestry, the management of timber in ways compatible with watershed, wildlife, range, and recreation. And this is what foresters had in mind when

they offered "multiple use" as a slogan to describe the policies of the U.S. Forest Service. There is no question whatsoever about this definition of good forestry; and the advantages of such management are overwhelming.

It takes timber to grow timber. It is not enough to have orderly fields of young trees varying in age from patch to patch. In looking at a well-managed forest one will observe that it is fully stocked with trees of all sizes and ages. It will be obvious that the land is growing about all the timber it can, and that most of the growth consists of high-quality, highly valuable material in the lower portions of the large older trees. It will be evident that no erosion is taking place. Roads will be stable and attractive, having the appearance of being lain on the land rather than cut into it. The soil will be intact, the forest floor will be covered with leaf litter and other vegetative matter in various stages of growth or decomposition. This absorbent layer holds rain and melting snow while it soaks down into the ground through animal burrows, pores such as wormholes, channels dug by ants, and tracks left by the decaying roots of past generations of vegetation. In this way the forest becomes a vast reservoir of water which gradually seeps down through the land and comes out in springs in the form of clear cool water. This is how the forest stabilizes stream flow, and this is what is referred to when one reads of the forest serving to protect our watersheds. One also observes in the well-managed forest that there are frequent small openings stocked with herbs and browse which serve as food and shelter for wildlife. Finally one observes that such a forest maintains its beauty and will continue to serve the recreational needs of most people as long as it is so managed.

This, however, is not the way our federal forests are being managed today. The annual cut of timber on our national forests has been increased from 5.6 billion feet in 1950 to over 14.8 billion feet in 1969. Likewise, the Bureau of Land Management has increased the allowable cut on the Oregon and California and other interior department lands in western Oregon twelve times since 1937, climbing relentlessly from an

initial five hundred million board feet to 1,170 million board feet in 1970, with actual sales escalating as high as 1,708 million board feet in 1970. The first revision downward is now (1971) being considered but that, although insufficient, is meeting with stiff resistance from industry. These increases have not been earned through improved forest practices or enhanced growth but rather have been achieved through application of a long dismal series of rationalizations invented to justify appeasement of the timber industry and to obtain increasing appropriations from Congress.

I have not traced the history of the rationalizations used by the Bureau of Land Management, and have studied only their present proposal. Referring to the Forest Service, however, one of the rationalizations is the continuous shifting of criteria for classification of forest lands. In 1928, Congress passed the McSweeney-McNary Act which, with subsequent amendments, gave the Forest Service responsibility for periodically measuring the forest resources of the United States. The first survey under the Act, published in 1945, indicated a total of seventy-three million acres of commercial forest land in the national forests within the forty-eight contiguous states. However, the second such inventory, published in 1953 and known as the *Timber Resources Review*, indicated a total of eighty-one million acres of commercial forest land, and the 1963 inventory, published under the title of *Timber Trends*, shows 91.5 million acres of such land. The reported increase does not reflect any change in the area of our national forests. That has comprised a total of 186 million acres throughout the entire period of these surveys except for minor variations due to acquisitions, exchanges, and withdrawals for parks and wilderness areas. The eighteen-million-acre increase is the result of reclassification of forest from noncommercial to commercial. This consists of land formerly classified as protection forest and managed for watershed, wildlife, and recreation. For example, they recently changed the definition of commercial forest land from "land capa-

ble of producing twenty-five cubic feet of wood annually," to "land capable of producing twenty cubic feet. . . ."

Consequently some of the increase in the volume of national forest annual timber sales consists of marginal species of timber growing on steep unstable soils, scattered stands, and timber that has taken a very long time to grow because of poor conditions such as thin rocky soil, dry climate, or short growing season.

Another way in which the cut has been increased on the national forests has been by combining the working circles. A working circle is a compact administrative unit within which the forester balances cut and growth. It is readily comprehensible to a forester in terms of its condition, its quantity and quality of timber, and its capacity for growth. Its various management considerations such as watershed, wildlife, and recreational values are also clear and comprehensible.

In recent years, however, these units have been merged so that now throughout the United States many national forests as a whole are regarded as a single working circle. This has several destructive results. Forest statistics are gathered by sampling techniques, and the people who collect the data do not see the results of their work. Data is forwarded to a computer center where it is processed and delivered to others than those who did the sampling. Consequently some of the most important management decisions are made by people who are not directly familiar with the forest. Basic decisions of how much timber to sell and what timber to sell have come to be made on the basis of rules and regulations emanating from Washington and depending upon data-processing printouts. In this manner, the practicing forester has generally lost touch, and the forests are run by people high in the bureaucratic echelons who are closer to industry than they are to the living forests they control. Thus it is that scattered timber and timber on steep unstable soils, while showing up in the inventory, is not recognized for what it is by the people making the management decisions. So, again, allowable cuts are increased in readily accessible high-quality timber on

the strength of inaccessible timber and timber growing on steep unstable slopes, all brought about by gerrymandering the working circles.

Another destructive effect of combining working circles grows out of the fact that allowable cuts are calculated from forests' statistics applying to each working circle as a whole. This means that the Forest Service cannot reserve any *de facto* wilderness for possible wilderness classification without reducing allowable cut, thereby bringing the whole timber lobby into action every time the question is raised about saving some particularly beautiful and fragile area not already included in a wilderness or primitive area. This is what led to the famous Parker case in Colorado, and is a major cause of the great conflict between the lumber industry and conservationists through the country.

Rotation is a technical term used by foresters to describe the length of time it takes to grow a tree from logging until the next generation is cut. This is the age of the tree plus a period of time allowed for regeneration. One way of determining a rotation is to superimpose a pair of graphs, one showing the current growth by year and the other showing the average growth through each year of age. Where these two curves cross is the point of diminishing returns. That point may be described as the age of the forest at which the annual average growth begins to decline. Under even-age management, it is the age at which long-run production would be maximized if you were to clear-cut and start over again. Now the interesting thing is that indicated rotations vary greatly with the unit of measurement used for making these determinations. To illustrate, if you use cubic-foot content of the entire tree, this technique will indicate a rotation age of forty years on an average Ponderosa pine site. If, however, you use board-feet international sawlog rule instead of cubic feet, which is a way of measuring growth in sawlog sizes, a rotation of ninety years will be indicated. Then again, using Scribner rule for determining optimum board-foot rotations, you get about 125 years, because that rule

emphasizes quality slightly by underestimating the quantity of lumber that can be cut from very small, low-quality logs. (The "rules" referred to are tables indicating the contents of logs of various sizes.) Finally, if you take quality into consideration by plotting value determinations rather than quantities, or perhaps by using board feet of clear lumber rather than total board feet, you get a rotation in the neighborhood of 260 years.

The Forest Service, in originally establishing management plans, was either using long rotations, or practicing a selection system of management in which such determinations were mere guides for helping decide what volume of timber to sell rather than justification for clear-cutting and starting over. But now they are practicing even-age management (clear-cutting) in every kind of forest I know of, and are basing their plans on the shortest board-foot rotations that can be calculated. They are even considering the possibility of going all the way and using cubic-foot rotations. Rotations calculated to maximize pulp production are already being used on some national forests!

This is an important point and I wish to clarify it by an illustration. Suppose we have a perfectly managed even-age forest consisting of a complete distribution of age classes and being managed on a one-hundred-year rotation. This would consist of one acre which is fallow having just been logged; one acre with seedlings following last year's logging, and so on until we have one acre now one hundred years old which we will cut this year. In this example, the sustained yield and the allowable cut are the same, and they consist of the volume of timber that this land produces in one hundred years on one acre. Now let us suppose the manager suddenly decides to shorten the rotation to fifty years. Henceforth he will cut two acres a year instead of one under the old plan. So now this year he cuts two acres, one with ninety-nine-years' growth and one with one-hundred-years' growth. Next year he cuts one acre with ninety-eight-years' growth and one with ninety-nine, and so on until finally, after fifty years, he has again a sustained yield under even-flow, but at a volume some-

where around half of what he is cutting today. He has increased his allowable cut and is still practicing sustained yield, but at a lower level of management. He could also calculate an amount that could be cut constantly under so-called even-flow for the next fifty years, to be followed by a sudden decline.

This bit of deceptive logic is called even-flow sustained yield and is being used intensively by both the Forest Service and the Bureau of Land Management.

Switching from a selection system of management, as described earlier under good forestry, to a plan of clear-cutting and growing timber in even-age stands is yet another justification for increasing the cut. This was a subject of great debate in the Douglas fir region during the nineteen-forties. Throughout that region, which is (or at least was) the most heavily timbered portion of our whole national forest system, the Forest Service is now cutting at least fifty per cent in excess of that quantity of timber that can be sustained. In the *Douglas Fir Supply Study* published in 1969, they reported on several management alternatives that had been considered. The startling thing is that they did not even consider the alternative of limiting their cut to that quantity which can be continuously sustained. All of their alternatives require cutting at least fifty per cent in excess of the sustained-yield capacity throughout the first cutting cycle, and for technical reasons there is even serious doubt they are even that close to balancing their resource budget.

It is recommended that this Committee obtain copies of the *Douglas Fir Supply Study* from the Forest Service. You will find therein a series of tables and charts showing the volumes of timber being cut now, and the volumes to be cut in the future under a variety of plans. All of the plans indicate an abrupt decline after the first cutting cycle.

In a forest managed so as to maintain a mixture of species and ages of trees such as we usually have in our virgin forests, there will be many trees beyond rotation age. If we practice a selection system of management from the very start in such forests, we have the luxury of being able to keep the

forest fully stocked and producing high-quality material without seriously disturbing other values of watershed, wildlife, and recreation. This involves permanently carrying an inventory of timber beyond rotation age. However, this inventory is not wasted; on the contrary, it provides insurance against errors of judgment in determining allowable cuts. It provides insurance against fire, insects, and disease. It holds open the option of using prescribed burning to secure national regeneration.

Switching to even-age management, on the other hand, sacrifices this inventory of high-quality material, introduces many hazards such as fire, insects, and diseases, and abandons multiple use. It provides a justification for temporary accelerated cutting, but it introduces many undesirable factors.

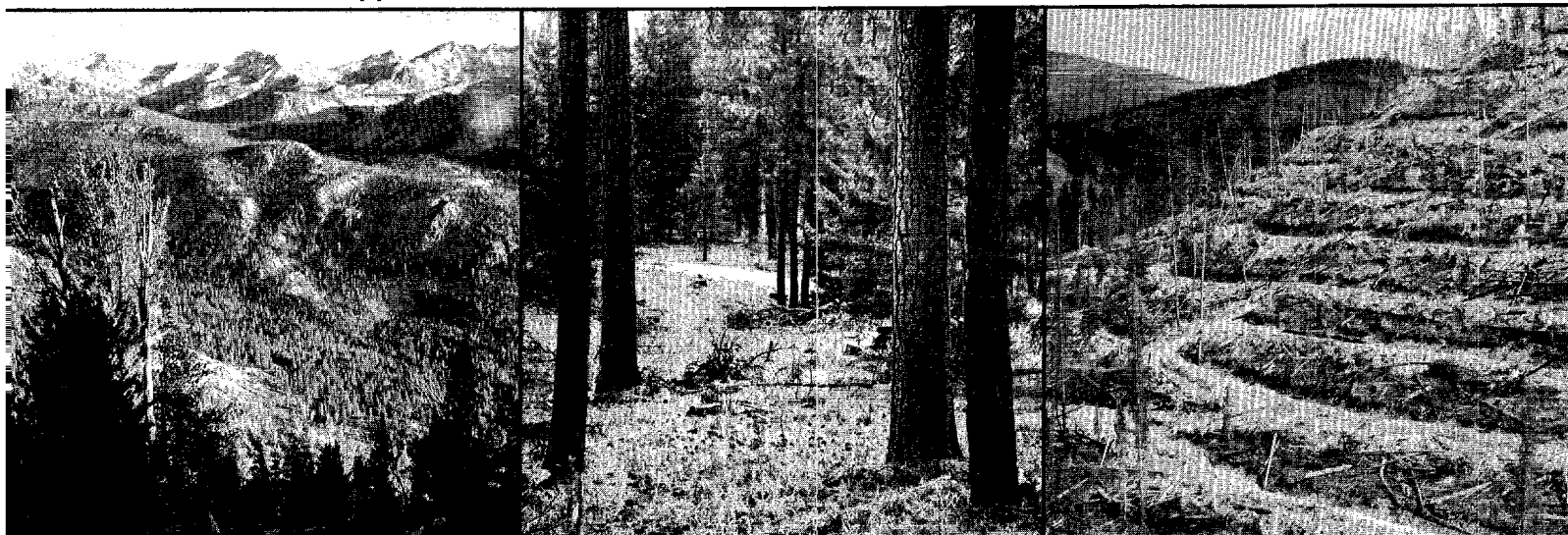
Clear-cutting causes rapid runoff of water, thus upsetting the watershed values of the forest. It causes accelerated soil erosion, and the leaching of important soil nutrients thus reducing productivity. It introduces difficulties in obtaining reproduction, and favors development of competing vegetation which all too often leads to widespread use of persistent chemical defoliant having unknown secondary effects on other forms of life. On steep slopes it frequently causes landslides, a matter of enormous concern in the Pacific Coast and Alaska.

In the Douglas fir region, both the Forest Service and the Bureau of Land Management are selling timber under one standard of measurement, while computing future yields under another. The minimum-sized tree figured in the present inventories of standing timber measures twelve inches in diameter and over, and its volume is calculated to an eight-inch diameter at the treetop. In the case of the Bureau of Land Management, where sales are made for clear-cutting within specified areas for a fixed sum of money, trees below that size are obviously included in the sale, but are not included in the record. However, estimates of future yields, for calculating allowable cuts, include trees measuring seven inches in diameter measured to a five inch top. The difference in volume between these

two standards of measurement in a second growth stand will be about forty per cent of the total. In other words, about forty per cent of the volume of timber in an even-aged stand at rotation age is in trees below twelve inches in diameter and in tops measuring between five and eight inches in diameter. So, while the Bureau of Land Management says they are selling timber in annual amounts that will never decline, there will actually be a decline of as much as forty per cent in their sustained yield following liquidation of present forests, resulting from this sleight-of-hand alone. The Forest Service makes use of the same rationalization, but in a manner that is much more involved.

There are many more rationalizations used to increase the amount of timber now being cut at the expense of multiple-use management. Most are too technical for this statement. I will describe just one more, one that has caused particular concern to people in the northern Rocky Mountain area. The Forest Service is immediately increasing the cut of old-growth timber on the strength of estimated growth rates applicable to plantations and the like, without waiting for the growth to actually occur. They subsidize sale of submarginal timber in areas such as shown in picture A by constructing timber-access roads with funds appropriated by Congress. Such land is then terraced and planted as in picture C. Let us say, for example, that there are one thousand acres treated this way, and it is estimated the plantation will grow one hundred board feet per acre, per year, on the average, for 140 years, or until the trees are of sawlog size. This would add one hundred thousand board feet to the annual allowable cut for the National Forest at the time of the first revision of their timber management plan after planting.

The additional computed cut will then be taken from prime timber elsewhere, such as shown in B, until the planted trees are large enough to cut — or as long as the prime timber lasts. The increased cut, in prime areas formerly logged selectively, is



**A** This area in the headwaters of the San Joaquin River of California is typical of marginal timberland proposed by conservation groups for inclusion in the wilderness system. (Cedric Wright photo)

**B** This selectively managed part of the Bitterroot National Forest, Montana, has been logged three times since 1905. (Photos B, C, D by Gordon Robinson)

**C** This subalpine area in the Bitterroot National Forest, Montana, used to be managed for watershed and recreation. The forest service is now subsidizing logging of this submarginal timber on these steep unstable soils.

taken in the form of “overstory removal” such as I have shown in picture D.

Thus, the Forest Service takes land as in A, treats it as in C, which is used to justify logging as in D, on land formerly managed for multiple use under sustained yield as in B.

Forestry is immensely complex. There are legitimate differences in opinion among foresters on most of the points I have raised. The trouble is that all of the specific decisions involved in determining allowable cuts are coming down on the side favoring increases in the rate of cutting. This is not legitimate, and this is the root of our problem.

The results of all these rationalizations are to be found in the flood of complaints you are receiving from all over the nation. The seriousness of the situation can perhaps best be exemplified by the absurd state of affairs that has developed in Alaska.

The Tongass National Forest recently issued a contract to U.S. Plywood-Champion Papers, Inc., calling for sale of 8.75 billion feet of timber to be cut in a fifty-year period from over a million acres. In one of three sale areas described in that contract, known as the Yakatat Working Circle, they appear to have sold more commercial timber than actually exists, while claiming to be practicing sustained yield on a 120-year rotation.

A similar situation exists in the

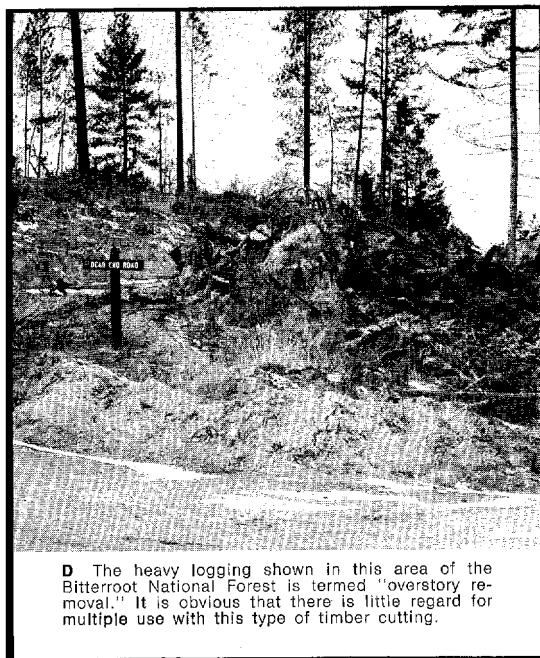
long-term Ketchikan Pulp Company allotment where only five billion feet of merchantable timber is available out of 8.25 billion contracted for from the Forest Service.

If the U.S. Plywood contract is allowed to stand, the experience will undoubtedly be similar to what happened with the Alaska Lumber and Pulp Company’s fifty-year contract where purchasers find only one-eighth of the timber the Forest Service sold to them is actually available. A joint survey conducted by Alaska Lumber and Pulp and the Forest Service in 1968 indicates the Forest Service overestimated the accessible commercial timber in that allotment by a monumental 790 per cent, and that allotment represents more than ten per cent of the entire allowable cut in the Alaska Region!

More appalling than these oversights is the devastation of the ecological balance of these areas. Fish and game habitat are destroyed. Soil erosion and landslides become prevalent, accompanied by lowering timber-growing potential. Clear-cut areas have lost their recreation values for many years to come. The problems of future supplies of timber, as well as space for non-consumptive recreation, are further compounded. The conflict between forest industries and citizens seeking wholesome outdoor experience will continue to escalate as long as present practices continue.

#### RECOMMENDATIONS

- Clearly a full-scale congressional investigation of timber management practices on the public forest lands is urgently required. The Forest Service and the Bureau of Land Management are violating the public trust by ignoring the spirit of the acts requiring multiple use. They have succumbed to the demands of industry at the expense of good forestry practices. It is vitally important that the agencies’ practices be reevaluated and programs be developed that insure the genuine practice of multiple use under sustained yield. Cutting rates should be reduced to quantities that can be sustained without reduction in quality of either the timber sold or the other uses of the forests.
- All marginal and submarginal forest lands under jurisdiction of the Forest Service and the Bureau of Land Management should be immediately withdrawn from all forms of development to protect watershed, wildlife, and recreation. These lands must be withdrawn from the category of “commercial forest land.”
- A moratorium should be promptly ordered on sales of public timber in all administrative units having a three-year backlog of sales in effect. Administered units lacking such backlog should be permitted to make



D The heavy logging shown in this area of the Bitterroot National Forest is termed "overstory removal." It is obvious that there is little regard for multiple use with this type of timber cutting.

only sales specifying a conservative system of selective logging. Congress would thereby have two years to make its investigation, and the agencies would have a year after that to implement new directives of Congress, which should require excellent forestry on our public commercial forest lands.

Congress should firmly resist all attempts from industry and the agencies to finance timber management out of timber-sale receipts, such as was attempted in the recently defeated Timber Supply Bill. Such funding encourages escalation of sales to obtain appropriations.

**FRED E. HOLT**

Director  
Bureau of Forestry  
State of Maine  
Augusta, Me.

Yes, the professionals do have limitations, as well as the public, and yes, they can tell us whether an "over-mature, spike-topped, catfaced, conky old veteran" should be saved for future generations. In fact, my experience on the White Mountain National Forest Advisory Committee tends to indicate they are doing it much better than some of the public special-interest groups.

I am sure the review process has improved in these past thirteen years. There is evidence all about us. The Advisory Committee noted above is getting into decisions well ahead of final action. There are some good modifications initiated by outside interests. Through the elective process, attention is being given to public review. In many cases, I am not sure the process is worth the cost — twenty-eight million dollars for manpower and printing of environmental impact statements within the U.S. Forest Service last year.

That is a high price to provide the public the chance to be heard in a public forum rather than writing or beating on one's congressional delegation. And it would be much more productive to pry loose at least part of that cash for improved management or services on the ground in behalf of the public interest.

The planning process involved in 1973-74 for the National Forests' place in New England, the White Mountain National Forest Plan, and now the development of unit plans for that forest has been most open and productive of ideas. It has more than answered the needs of the average person. Those representing special-interest groups have had full opportunity for second review before final drafts were prepared. I am fully persuaded that if a person desires to participate, he is being provided a genuine opportunity.

**JOHN R. MCGUIRE**

Chief, Forest Service  
U.S. Department of Agriculture  
Washington, D.C.

Reading the reprint of Charles Reich's article "A Precious Resource" made me realize how much progress has been made during the last thirteen years in bringing public awareness and public involvement into decision-making on the present and future of America's public forests. I speak specifically about the 187,000,000 acres of national forest lands administered by the Forest Service. But many of the changes apply to all federal lands.

First, I'd like to discuss legislative

changes that have drastically altered the climate of resource management in the last thirteen years. One of the major ones was the National Environmental Policy Act (1970), which requires agencies to file an environmental impact statement on proposed "major federal actions significantly affecting the quality of the human environment." The proposed action is spelled out in each impact statement, along with alternative actions, and the environmental impact of each is discussed. The impact statement provides for a public airing of the decision-making process, along with discussions of the building blocks for those decisions, such as general environmental descriptions, consequences of proposed action, discussions of alternatives to the proposed action, and intentions for mitigating adverse impacts. The N.E.P.A. also requires public notice of a national scope by means of a notice of availability of draft and final environmental impact statements published in the *Federal Register*. The public then has a period of time to respond to the proposals. Although the process is about five years old, the "shakedown" is still occurring, with judicial reviews and court cases aiding in fixing the firm bounds of duty and of reasonableness. While some have feared that an agency's program could be forced to a halt by bringing suit on every decision and its N.E.P.A. processing, recent court decisions have tended to provide balance.

As of mid-December, 1974, the Forest Service had issued 566 environmental impact statements. Although this has been a valuable tool for involving the general public, it is also a very costly one. For example, the estimated cost of implementing the N.E.P.A. by the Forest Service alone was twenty-eight million dollars nationwide for fiscal year 1974. But the process does assure that the public express its desires before an action is finally decided. And review by the Council on Environmental Quality of the action adds the element of objective review. In its 1974 annual report, the Council on Environmental Quality said that "the Forest Service had taken a broad and positive view toward implementation



of the act, went far beyond a narrow concern with the Section 102 requirement, and integrated each step in the N.E.P.A. process—from initial environmental analysis through preparation of draft environmental statements, involvement of the public, analysis of comments, and preparation of final statements—into the planning and decision-making process.” I can heartily say that I am very proud of this acknowledgement.

The Wilderness Act had not passed at the time Mr. Reich wrote his article, and that Act of 1964 preempted many of the “agency” prerogatives he described. No longer may the Secretary of Agriculture or the Forest Service designate an area as “wilderness,” “wild,” or “primitive,” only the Congress may now exercise that power. A review process includes direction for public hearings in the vicinity of the area to be proposed, special notification and invitation to comment to specified officials, public notice, and other elements of public involvement. The hearings include a verbatim transcript, and this, along with letters received subsequent to the hearings, constitutes the official record of the hearings, which must be made available to Congress.

The Congress has conducted public hearings, in the nation’s capital and elsewhere, on the proposals before they have been enacted into law. This has afforded a “national” overview, a need recognized by Mr. Reich.

The Wilderness Act officially designated fifty-four wildernesses of the national forests that had already been set aside administratively by the Forest Service during the previous forty years. Today there are eighty-five wilderness tracts in the national forests that cover more than eleven million acres. I might add that fifty years ago we pioneered the wilderness concept by setting aside thousands of acres of the Gila Wilderness located in the Gila National Forest in New Mexico.

There is one final aspect of the Forest Service commitment to informing and involving the public. In August, 1974, we issued a draft program called “Environmental Program for the Future.” This is a long-range view of potential national forest programs which we had prepared prior to pas-

sage of the Forest and Rangeland Renewable Resources Planning Act. We have given nationwide distribution and publicity to the draft and requested public comment by December 15th of last year. Today’s indications are that the public is genuinely interested; we have received wide and varied comments. We welcome them and they will be seriously considered as we move ahead.

Mr. Reich’s 1962 article mentioned the growing demands on the nation’s various forest resources. These demands have greatly increased since the article was written. More and more, the various uses for the forests, particularly the publicly owned national forests, are resulting in tremendous demands. These may be timber producers versus wilderness proponents; miners versus environmentalists; wilderness proponents versus recreational vehicle enthusiasts; or backpackers versus the mobile campers who want developed recreation sites. The simple truth is that the national forests cannot possibly meet all the desires of all the people, but our job is to involve the public so we can make long-range decisions that benefit the most people over the longest period of time. Unfortunately, many people will not even realize their own demands on the national forests. An individual may want as much area as possible placed under a wilderness designation. Yet, this person may also want the lumber and minerals that come from national forests, the meat obtained from cattle grazing on national grasslands, and, certainly, water that flows from watersheds in the national forests. The task of setting priorities on resources and determining trade-offs and looking at the balance is not an easy one.

The public has a right and an obligation to make its collective voice heard in land-management decisions. The Forest Service has set up the machinery to facilitate the voicing of public opinions. I feel that we are succeeding in our continuing Inform and Involve Program, initiated in 1971. I don’t mean to imply perfection is imminent. It’s not. But, we feel certain we are heading in the direction which will provide the fullest possible opportunity for public

participation in public land decision-making. Through this program we hold public meetings, workshops, and hearings, and issue draft documents on proposed Forest Service plans to inform the public what our proposals are and what other alternatives exist. Some public meetings are called on the potential uses of areas inside a national forest without any proposal in mind. A second series of public meetings may be held to review the draft plan created by ideas collected from the first meeting. There are several cases where interested citizens and groups have themselves initiated proposals for resource planning and use. Our Inform and Involve activities on proposed planning or projects occur at the national, regional, and local levels. For example, at the local level the national forests are airing draft unit plans, or are asking the public for their feelings and ideas about creating a plan for a recreation development, timber management, or other resource uses. In involving the public, advance publicity for such a public meeting requires public notices, press releases, the purchase of advertising space in newspapers, letters to groups and organizations, and advance distribution of documents. In many cases, these publicity projects have spawned additional news stories in both the print and broadcast media prior to meetings. At the meetings we receive oral and written comments from the public and analyze these to determine what the responding public wants. A lot of time and effort goes into preplanning such public meetings. Our managers are aided by a Forest Service national publication, “A Guide to Public Involvement and Decision-Making.”

An excellent example of public involvement was shown in the Forest Service’s national effort on the Roadless Area Review and Evaluation, which inventoried 1,449 roadless areas, totaling 55.9 million acres, for potential wilderness and other uses. It was the most extensive public involvement effort ever undertaken by a government agency. We held over three hundred meetings nationwide in urban, suburban, and rural areas, which were attended by more than twenty-five thousand people. We received more than fifty thousand

written and oral opinions. This study resulted in a final list of 274 new wilderness study areas, totaling almost 12.3 million acres. These areas will now be studied for possible wilderness additions, again with public involvement as a key element.

We benefited and the public benefited from this national review of undeveloped roadless areas. When the interest in a subject is high, there is no assumption of what the interested public wants. We go to the public and ask. As might be expected, normally only an extremely small percentage of the population becomes either informed or involved. Generally, the greatest number of responses are from special-interest groups such as members of preservation organizations, workers and managers in the forest products industry, or citizen groups brought together to support or oppose a particular action. However, our efforts do, as Mr. Reich suggests, give the public the opportunity to participate in the planning for action.

Our Inform and Involve process is not a popularity contest in which the highest number of votes takes the forest resource prize. It is one that sorts out recommendations and weighs the long-range benefits, while looking at all the alternatives and their ramifications. It still leaves the final decision with the land manager, but he has a far broader and sounder basis on which to make that decision.

The 1962 article claimed that the land-management agencies had the power to make "bitterly controversial decisions, choices between basic values, with little or no outside check." I would like to mention two very powerful checks in our democratic system. One, of course, is Congress, which in the last thirteen years has become very active in exercising its "checking" duties. I've already mentioned several major pieces of legislation made since 1962 which laid out the ground rules for various aspects of federal forest management. Nor has Congress hesitated to use another check—its budgetary authority.

There is a second check on federal forest management: the judicial system, which, as a cornerstone of our democracy, has always provided a

check against the other two branches of federal government. The court system has modified its "standing to sue" philosophy, and various interest groups and private citizens have been quick to accept the opportunity to judicially question a federal land action. Gone is the day when a group or individual felt it could not possibly win a case against a federal agency. In the last ten years, various public groups, especially environmental groups, have effectively used the power of the courts to protest decisions—and in a number of cases to reverse them.

As you can see, the situation has changed measurably since 1962. The professional land managers' ability to interpret and manage the land, combined with the public's continued interest in the environmental crusade, will bring about a lot more changes in the next thirteen-year period. I, for one, cannot now conceive of administering public lands without review, advice, and assistance from the public. It does slow the federal decision-making process, but I feel the resulting decisions now are better and more effective because of the public support they engender.

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#### GLADWIN HILL

*National Environmental Correspondent  
The New York Times  
New York, N.Y.*

The onset of the Environmental Revolution about 1970 unquestionably brought some profound changes in the orientation of the Forest Service to its duties.

The National Environmental Policy Act and court decisions under it have forced these changes. The Forest Service now, of course, has to apply the environmental impact criterion to a lot of its activities where it didn't before. (The 1974 report of the Council on Environmental Quality goes into this in detail.)

But most indicators still seem to be that the Forest Service is still too heavily the handmaiden of the commercial timber industry, and the latter is as rapacious as ever.

(The industry, within the space of a few months in 1964, suddenly re-

versed its tune from "The government must chop down more trees to help solve the housing shortage" to "The government must stimulate housing to bolster up the timber industry." This manifestly is economic sophistry. Lumber prices are not a critical element of housing costs, and to the extent they are a factor, the way to help housing obviously would be for the timber industry to put brakes on its constantly rising lumber prices. The sudden reversal of the propaganda line flouts basic economic principles. One minute, accord to the industry, there is not enough timber; the very next minute there is too much. There is never a moment in the transition, according to the way they play the game, when supply and demand are in equilibrium and all parties are reasonably contented. It is a perpetual game of "Gimme-gimme-gimme"—out of the public purse, in one way or another.)

I'll believe the Forest Service isn't subservient when its spokesmen stop going along with this charade and speak out loud and clear in the public arena for what they must know is true and right.

The Forest Service has erroneously sought survival down the years in the strategy of playing off timber interests and the recreation interests, bending according to which direction the most heat is coming from, using the demands of one as a lever to temper the demands of the other. In the process, the public is ill served.

I see little evidence of a change in this pattern, and of the Forest Service pursuing a truly balanced course among its multiple responsibilities—timber, mining, grazing, recreation, watershed, and wildlife. Repeatedly in the last few years it has had to be curbed by lawsuits from rushing land into logging before it could be sequestered for wilderness-status study. The Forest Service's spokesmen seem to maintain sedulous silence when they should be speaking out—either pro or con, wherever their convictions lie—on issues like mining in sensitive National Forest areas. Implicitly they pass the buck on decision-making to politicians and commercial interests rather than functioning as the specialists the taxpayers hired them to be.



In sum, I think a historic process of change has started, but the Forest Service, while going along grudgingly to some extent, still seems bureaucratically resistant to recognizing the totality of the new ball game. It seems to feel it has to march to the drums of interest-cliques — commercial and petty self-serving members of Congress — rather than the rising new arbitrar, the public interest.

I am sure thoroughgoing reform is going to come eventually, but it is going to take constant pressures.

One basic problem, for which the Forest Service can't be blamed particularly, is the nation's failure to take all the public lands — National Parks, National Forests, and Bureau of Land Management land — and consider them integrally in terms of a long-range use program. It is idiotic to have three identical trees or plots of ground only a few yards apart separated by imaginary lines and managed by three different agencies under three different sets of ground rules. An integrated approach — which was not blueprinted by the Public Land Law Review Commission — would do a lot to get the multiple monkeys off the Forest Service's back and enable it to operate more to the public satisfaction.

**RALPH D. HODGES, JR.**

*Executive Vice-President  
National Forest Products Association  
Washington, D.C.*

There has been a significant improvement since Mr. Reich wrote his 1962 paper, in the consideration by federal land-managing agencies of public inputs and participation in their decision-making process.

The main thesis of the article was that these agencies were making policy and major administrative decisions significantly affecting the present and future use of the nation's public lands without the benefit of adequate public participation in these decisions. This was held to be against the basic principles of a democratic society, although Mr. Reich also stated that the decisions reached after soliciting public inputs may be of no higher quality than those arrived at in

seclusion by professional managers. Mr. Reich suggested a variety of ways by which the agency decision-making process could be made more responsive to public inputs. My own summarization of his recommendations is as follows:

Adequate public notice of major long-range plans and significant land-use decisions.

Public hearings on these decisions if warranted.

An opportunity to submit written views on a particular decision.

Public participation in the formulation of long-term land management plans. These long-term plans must be reasonably definite and specific and not so general that they leave real issues undecided.

A procedure by which the public is allowed to submit for agency consideration and review proposals for future management of the forest.

Appointing internal "watchdogs" within the agencies charged with the duty of protecting a particular interest or use of the forest such as wilderness, grazing, or recreation.

The National Environmental Policy Act (N.E.P.A.), which became effective January 1, 1970, has had a significant impact on the way federal land-management agencies conduct their business. This Act, along with subsequent court interpretations, would seem to meet most of Mr. Reich's recommendations. Under the Act, federal agencies must file an Environmental Impact Statement (E.I.S.) for any proposed major action "significantly affecting the quality of the human environment." In this statement there must be a detailed description of the environmental impact of the proposed action, any adverse environmental effects which cannot be avoided if the proposal is implemented, alternatives to the proposed action, the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and irrevers-

ible and irretrievable commitments of resources involved if the proposed action is implemented.

In conjunction with the development of an E.I.S., the agency is required to use an interdisciplinary approach in the planning and decision-making process, insuring the integrated use of both the natural and social sciences. Under the N.E.P.A. and subsequent Council on Environmental Quality and court interpretations of it, the economic and social consequences and local community impacts associated with the action in question, as well as reasonable alternatives to it, must be evaluated in addition to the environmental impacts. Evaluation of the economic impact of proposed actions has been given woefully inadequate attention by the Forest Service.

Under Section 102(2)(b) of the Act, federal agencies are directed to take action needed to "insure that presently unquantified environmental amenities and values may be given appropriate consideration in decision-making along with economic and technical considerations" (emphasis added). In Section 204(4), the C.E.Q. is directed "to develop and recommend to the President national policies to foster and promote the improvement of environmental quality to meet the conservation, social, economic, health, and other requirements and goals of the nation." Present C.E.Q. guidelines require that each alternative analyzed "be sufficiently detailed to permit comparative evaluation of the environmental benefits, costs, and risks of the proposed action, and each reasonable alternative." Present C.E.Q. guidelines also require that the impact of the proposed action on community stability must be evaluated. Item 8(a)(i) states, "Agencies should also take care to identify, as appropriate, population and growth characteristics of the affected area and any population and growth assumptions used . . . to determine secondary population and growth impacts resulting from the proposed action and its alternatives." The Secretary of Agriculture's guidelines, effective May 29, 1974, state: "This requires analyses and descriptions of both the anticipated favorable and adverse impacts of the proposed

action as it affects the environment. . . . The environment in this case includes both the natural environment and the social and economic environment."

The public is normally given at least sixty days to comment on a draft Environmental Impact Statement preliminary to agency preparation of the final E.I.S. Public hearings on an E.I.S. often are held. The U.S. Forest Service presently applies the N.E.P.A. process to significant planning actions including most timber-management plans for individual National Forests, detailed land-use plans (unit plans), and major programs such as chemical control of insects, type conversion, etc., to public review and scrutiny through the N.E.P.A. process. Although an agency's handling and responsiveness to public input on a specific issue can always be criticized, there is no doubt that the performance of the Forest Service in this area has improved since 1962 when Mr. Reich prepared the article.

A recent and very significant development which holds promise for greatly improving the management of the National Forests to meet the needs of the public has been the passage of the Forest and Rangeland Renewable Resources Planning Act of 1974.

The core of the new Act is a system of successive statements — assessment and program, budget-formation policy, explanation in event of short-fall in budget request, and accomplishment evaluation. The success of the Act depends on the effectiveness of this system to provide the means for funding the program that it calls for. Even though the Planning Act does not deal with policy issues or management directives, it must be classified as major forestry legislation. The assessment and program portions of the system will result in comprehensive Forest Service reports to the Congress which will set up a framework for inventorying and analyzing all renewable resources of the National Forests, developing present and future supply and demand relationships for these resources, and initiating a long-range program for meeting the future needs of the American people. The Act also sets up some unique budgetary procedures to in-

sure that the public is informed of, and given proper justification for, any significant deviation from the announced program. It is difficult to imagine any process of planning which would be more open to public participation, scrutiny, and review, than those procedures that will be invited under the Planning Act.

In summary, the enactment of the N.E.P.A. in 1969 significantly increased the level of public participation in policy, administrative, and planning decisions of land-management agencies. When the initial stage of the land-use planning process for the national forest is completed, the Forest Service will have prepared about three thousand detailed and specific land-use plans on specific units of land. All of these plans will go through the N.E.P.A. process and, therefore, will require public participation at the draft stage. Many of these plans will have also incorporated considerable public inputs during their preparation. Although an agency will always receive criticism by various individuals and groups for not conforming to what was desired by that individual or group, a formalized set of procedures for public inputs has been well developed. These procedures would seem to satisfy many of the recommendations for improvement suggested in Mr. Reich's article.

Although it is much too early in the implementation of the Planning Act to make even a preliminary evaluation, early indications are quite encouraging. It appears that there will be a high degree of public participation in all stages of the development of both the assessment and the program.

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#### **TOM McCALL**

*Former Governor  
State of Oregon  
Salem, Ore.*

"An inspiration" is the phrase to describe your decision to reprint Mr. Reich's article on the nation's forests. It was exceedingly well done and its general thrust stands up nearly as well in 1974 as in 1962.

Possibly an unperceived value of

reprinting the article will be to remind us that the bureaucracy is everywhere, not simply in the forests, and that we need to have all governments open to public access. Well-known other examples of where advocacy of special interests replaced the public interest are in the Food and Drug Administration and the now-defunct Atomic Energy Commission.

Back in the forests, I think Mr. Reich would find today that this particular bureaucracy has opened up the decision-making process at least a little. And I know of many well-placed professional foresters and parks specialists who are trying to open it up more, and to be responsive. We used to have to get attention with a peavey and a blazing ax; now we get it by literally camping on the bureaucracy's doorstep, or by brandishing our lawsuits, or by convincing the professionals that the people really do have rights and ideas.

If I were to dig as deeply as I'd like to, and report my findings, my letter would become the size of one of the Center's *Occasional Papers*. Feeling and wishing to be limited, though, let these few examples of the new openness serve to say that some progress has been made:

In the last session of Congress, the House Appropriations Committee finally succumbed to pleading and heated demands by adopting a program for reforestation. It is not adequate, but it's an improvement. At last, the forest-congressional bureaucracy has recognized that if the federal government is going to maintain its profit margin some of the profit has to be sunk into development. Because reforestation is so fundamental to Oregon's economic and environmental self-interest, we've nearly blown out our collective lungs for acceptance of the principle.

Another example of how the forest bureaucracy is now more willing to listen could possibly have found its roots in the final paragraph of Mr. Reich's article: "But can they [experts and professionals] tell us whether an 'overmature, spike-topped, catfaced, conky old veteran' should be saved for future generations?" The example is the Pacific Northwest Snag Conference conducted several months

ago in Portland. No agreement was reached on which snags where should be saved, or even whether. Environmentalists admitted they didn't have all the answers, despite their predilection toward saving snags for nesting and bird-food sources. The important note is that it is a matter of public discussion now; I can't recall that public snag conferences were routine in 1962.

The best example of which I am aware of how responsive the forest bureaucracy can be is the way in which the Oregon "French Pete" controversy was resolved. French Pete has been described as the last low-lying virgin forest in Oregon. It is on the west edge of the upper Willamette Valley. Environmentalists wanted to preserve it for recreational and scenic purposes. The Forest Service wanted to log it.

My own inclination was to come down on the side of the environmentalists, but that would have been largely an emotional reaction. So Oregon state government asked the Willamette National Forest supervisor to make a land-use plan for the entire forest to determine highest and best uses, to discover what should and should not be logged, and whether means existed to obtain a rational yield from the Willamette Forest without logging French Pete. The people had an opportunity, and used it, to participate in the process.

The planning was done, and while there is still an occasional call for protecting French Pete by congressional action, I think the decision has already been made. French Pete will not be logged because it cannot be justified.

Mr. Reich was right then, as he is today, in saying: "Professional managers and planners cannot be dispensed with." We must expect them to make plans so there is something on which we the people may comment. The problem at the time of Mr. Reich's article was that the bureaucracy was casting its plans in concrete. That is still the case in many ways, but I have taken heart. Occasionally today we find the plans are cast in putty, and the people are in there with fingers and trowel.

**GEORGE A. CRAIG**  
*Executive Vice-President*  
*Western Timber Association*  
*San Francisco, Calif.*

There have been meaningful changes from policy development as described by Mr. Reich in his excellent 1962 article. While "popular participation in decisions affecting the disposition of our forest land" has not increased to the extent he suggested desirable, it probably never will. However there now is greater opportunity for such participation. The National Environmental Policy Act of 1969 (N.E.P.A.) and the Forest and Rangeland Renewable Resources Planning Act of 1974 (P.L.93-378) are providing opportunities for recorded formal public expressions, requiring agency explanation, and should result in an assumption of greater responsibility by the Congress. The courts have gone well beyond Mr. Reich's understanding of their responsibilities in some questionable decisions. The net results of all these changes should be a move toward better policies for public forests.

The changes have been unnecessarily painful at times, and abuses have occurred. Examples can be cited of the following difficulties anticipated by Mr. Reich in his article:

"Courts are out of their element when they try to pass on the merits of policy judgments. And when they attempt to supervise in detail the procedures that are followed in the making of such judgments, they are likely to produce not better results but a procedural mire in which participants flounder and action stagnates. . . .

"Hearings might not be warranted for every type of action; they could easily pull everything to a dead stop. . . .

"Procedural reforms may also have too strong an effect. They may cramp an agency into an arthritic stiffness. It may come to believe that it can do nothing without months or years of procedure, and as a consequence it will do nothing most of the time. The public thus exchanges a vigorous, if unrepresentative, professional government for drift or

maintenance of the status quo by default. . . ."

When the Forest Service has tried to move toward an organized public review of policy questions there have been attempts to frustrate the process, as in the review of roadless areas that began in 1971. Further, the wilderness advocates have made inappropriate gains but are still not satisfied and are using a variety of tactics to accomplish their objectives. For example, the *Regional Forester* reported July 10, 1972, that more than four thousand comments had been received regarding the review in California, and sixty-nine per cent expressed the opinion that there was enough wilderness in California and that no more was needed. Only twenty-three per cent supported more wilderness. Without the public review there would not have been expressions of this magnitude. However, the Forest Service announced in July that the allowable cut was being reduced in California because twenty-one areas involving 1.3 million acres are to be studied for addition to the approximately two million acres already a part of the wilderness system in California National Forests. Now the Sierra Club is going to court and taking other actions to tie up great additional acreage essential to the support of the timber industry and other resource programs in California.

Experience under the N.E.P.A. has been disturbing in some cases. Its implementation in relationship to going programs without causing unreasonable delays has been difficult. Problems are compounded when those opposed to partially completed programs use the N.E.P.A. as a device to delay and otherwise interfere with such programs, even though fully funded by the Congress and not differing substantially from past programs that have also had congressional financial blessings. There is need for the application of a rule of reason to these interim programs, most of which have had an environmental review but not in the form specified under the N.E.P.A. If the N.E.P.A. is ultimately used to assure full consideration of alternatives, to evaluate, and to disclose reasons for selection of courses of action "to

foster and promote the general welfare . . . and fulfill the social, economic, and other requirements of present and future generations of Americans," all without excessive cost, it will achieve considerable value. It is a tool that can be used properly or improperly.

Some of Mr. Reich's other concerns should be reduced under P.L.-93-378. He was troubled that "Congress has told the Forest Service to 'best meet the needs of the American people' but has left entirely up to the Service to determine what those needs are. . . ." He noted: "Plainly, Congress could draft new forest statutes spelling out 'public interest' in specific detail and deciding, to some extent at least, the relative 'values' to be placed on exploitation of resources, recreation, water power, wilderness, and other uses." The assessment, the program, the statement of policy, and the annual performance report should all contribute to a public policy that better fits the needs of the nation as expressed by the public.

As Mr. Reich said: "The public can be shortsighted and ill-informed and indifferent." (I found some of his comments about "lumbering" to be "ill-informed.") However, I agree with his general proposition that the best hope for a sound public policy relative to the National Forests lies in the development of management goals of a more specific nature through the Congress. This should be done with the aid of the professionals in and out of government. The Renewable Resource Program is to be prepared in accord with the N.E.P.A. This should mean full disclosure of Forest Service information relative to the program, an opportunity for public comment, Forest Service response to all reasonable recommendations, and an evaluation of economic and environmental consequences of proposed alternatives — and there should be alternatives offered. Unit plans should be prepared to accomplish the national goals and should be developed by professionals with due environmental, economic, and public involvement considerations under the N.E.P.A. As Mr. Reich noted: "Ventilation is basically healthy."

I am optimistic that the transi-

tional pains and frustrations of the present will be overcome and we will eventually have the National Forests managed to meet more specific goals developed through the democratic process.

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It seems almost incongruous to publish an article on this subject that was prepared thirteen years ago. As you should know, this period has probably been one of the most dynamic in history in terms of public concern for the nation's forest resources. How much better it would have been had the author updated his views in light of the many developments that have occurred since 1962 and have had those evaluated.

At the federal level there have been many major accomplishments that have corrected or ameliorated the criticisms of Mr. Reich about forest resource managing agencies, their administrators, and professionals. To name a few, there have been the finding of the Outdoor Recreation Resources Review Commission in 1962; the 1963-70 work of the Public Land Law Review Commission; the Wilderness Act of 1964; the Wild and Scenic Rivers Act of 1968; the National Environmental Policy Act of 1969; and, more recently, the Forest and Rangeland Planning Act of 1974.

At state and local levels, there have been comparable actions. For instance, in California we have the State Environmental Quality Act of 1970 and the Z'berg-Nejedly Forest Practice Act of 1973. And the part played by the courts in these matters has had an enormous effect on public decision-making.

Having evolved from a greater interest shown by the citizenry in forests, these legislative accomplishments have provided more opportunities for popular participation in decisions affecting the management of not only public forests but those in private ownership as well. The forest resource agencies have sincerely tried

to abide by the intent of these laws. However, meeting these new responsibilities has been fraught with difficulty because the extent and quality of public involvement have been more often than not both skewed and polarized by almost exclusive inputs from organized conservation groups having special interests versus those from economic sections. Consequently, agency administrators and professionals are faced with a dilemma in trying to obtain the views of the silent majority who are apathetic or seem to be willing to leave the decisions to be made without citizen participation.

This lack of truly representative public involvement makes it necessary for agency officials in their planning processes to consider factors and opinions that may be unexpressed but which definitely reside in the minds of the vast majority of the public. These planners, usually by experience and training, have some feel for this public thinking, and to ignore it would not be right, especially when the issue may be split widely by diverse special interests. Professional foresters especially recognize that the use and management of forest resources must be determined in a large measure by the objectives, policies, and means of the owner, whether public or private. Our role is to use our expertise in forestry and related sciences to advise and give leadership in planning and implementing programs relating to forest resources to improve the quality of the environment and to meet the material and spiritual needs of mankind, recognizing that the ultimate decisions for management of these resources largely rests with the people who engage our services.

Despite the progress that has been made in attitudes, legislation, and by judicial cases to obtain procedural reforms in formulating resources decisions, certainly there still remain some problems. The central one is how does a public administrator obtain truly representative public viewpoints? If Mr. Reich or your organization can provide administrators and professionals with constructive, practical, and specific ways to do this, a real service will have been rendered to them and the people at large. ■

LORD RITCHIE-CALDER

# Scientists in the British Government — a Memoir

We have the science of science which provides a two-dimensional pattern — a blueprint — of relationships within science, between science and technology, between science and business, and between science and government. That is  $S^2$ . There is, however, another dimension, beyond the numbers men and the systems analyzers, and that is expressed in the question “What’s it all in aid of?” That is,  $S^3$  = the science of the science of science.

The concept of the science of science goes back to the Congress of the History of Science in 1931 in which the Russians took part. The Soviet Union was then the one country which had systematized science in its national planning. In the *laissez-faire*, or, as we now say, “market economy” countries, “planning” was a naughty word which identified the social planner as a Marxist. The scientists and historians taking part in the Congress, however, could accept the idea of scientific methodology being applied to science itself. And it could be, and was, extended to the function of science within society.

Recall that the Western world was then in the throes of the Great Depression and that scientists, with or without social awareness or social conscience, were shivering in their ivory towers from the economic blizzard outside. Government subsidies, where they

existed — as in Britain — had never been abundant and were then cut back in the panic measures to balance budgets. The universities where academic research was practiced were in bleak financial difficulties. Endowments by private individuals or foundations had gone out through the windows along with the defenestrated financiers, jumping from Wall Street skyscrapers. Industries, even where science through applied research was the wellspring of their development, decided that research teams were a luxury which the market economy could not afford and that they would make do with what they had.

Scientific groups were being broken up, long-term projects were abandoned, and scientists were left with no illusions about their being a privileged class to whom the world owed a living. They were not immune from economics or politics. They were functional citizens with social responsibilities. They were pretty bewildered, most of them, as they came blinking out of their ivory towers. Nothing in their scientific education had equipped them to make social judgments. They were politically naive.

There were, of course, conspicuous exceptions to that generalization. In 1926 — the year of the General Strike in Britain — young scientists at Oxford and Cambridge decided that, in their preoccupation

with science, they were losing touch with the world outside and they formed a remarkable dining club, the "Tots and Quots" ("*Quot sententiae tot homines*") ("As many opinions as there are men"). The Latin tag was to show that, though scientists, they were on speaking terms with the humanities. They met as a monthly dining club on neutral ground in London. They invited outsiders: politicians, diplomats, and divines. They were concerned even then with the social relations of science, with the use, abuse and non-use of science.

We got the British Association for the Advancement of Science to discuss social problems scientifically. John Boyd Orr's report on "Food, Health, and Income," was delivered from the B.A.A.S. platform; it led to the "marriage of health and agriculture" in the form of the Mixed Commission of the League of Nations and the Hot Springs Conference during the Second World War which gave birth to the Food and Agriculture Organization of which Boyd Orr became the first director-general. Our campaign persuaded the B.A.A.S. to set up its division of Social and International Relations of Science. We got also a joint committee of the B.A.A.S. and the Trades Union Council which, with an impressive roster of world-famous scientists, was prepared to advise the T.U.C. on the industrial changes which were bound to come from the discoveries then being made in the laboratories.



The war came and the British Association's annual meetings were mothballed for the duration, but the Division of Social and International Relations went on under the presidency of Sir Richard Gregory, the great editor of *Nature*. With the bombs falling around, we held an international conference on "Science and the Postwar Order" with the Russians, the Chinese, the Indians, etc., participating and with H. G. Wells promoting his "World Brain" which was to emerge as UNESCO. We held another on "Science and Natural Resources," proposing an international resources authority as part of what was to become the United Nations. We held another international conference on "Postwar Education for Science and Technology." And so on.

The Tots and Quots, under the chairmanship of Solly Zuckerman, probably had a more direct effect. It included the names which had become or were becoming scientifically famous and publicly conspicuous — J. D. Bernal, who had already written *The Minimal Functions of Science*, still the Bible of the

science of science movement; Lancelot Hogben, who had written *Science for the Citizen*; Julian Huxley, who, apart from his own individual books, had collaborated with H.G. Wells on *The Science of Life*; Patrick Blackett; J.B.S. Haldane, who was writing some of the best ever popular science articles in the *Daily Worker*, which made the scientists of the Athenaeum splutter into their vintage port; Joseph Needham; C. H. Waddington; J. G. Crowther; and a lot more.

When the war broke out, we members of the Tots and Quots went on dining regularly, and in the winter of 1939-40 we had an historic meeting. We decided that, once again as in World War I, science would be misused and that scientists would be drafted into the infantry and so on. We discussed what a proper policy should be and, as we talked, we saw what we had to do — write a book! That very moment Allen Lane of Penguin agreed to bring out a book — a Penguin Special — as fast as we could write it. The subjects and chapters were divided out across the table and at the next dinner the paperback *Science in War* was on our side plates.

For once, the authorities paid attention. Scientists were recruited for work for which they were reasonably suited. More extraordinarily, many of them found themselves in positions of real influence in military affairs.

In 1941, when I became Director of Plans and Operations of Political Warfare in the British Foreign Office, I wanted to get myself a scientist. My appointment was a strange one. The Foreign Office had never gone in for planning. Foreign policy was based on treaty and expediency, and treaties were only invoked as matters of expediency. Planning, no. I suspect that they were looking for someone familiar with methodology but they were too scared to have a real scientist so they decided to compromise by having a science writer who was an expert on experts. I found myself surrounded by 49,999,999 people, including Winston Churchill, who considered themselves experts in propaganda. What I needed to give me support was someone who was a sceptic and a devil's advocate. I needed a scientist.

So I turned to the Tots and Quots. At the next dinner, everyone turned their cards face upward. None was available to me because each was in a key job. The generals and admirals had found their "Tame Magicians." Patrick Blackett, the cosmic ray physicist, was scientific adviser to the Admiralty, fighting the Battle of the Atlantic with a slide rule. Waddington was chief scientist with Coastal Com-

mand. Neville Mott, the solid-state physicist, was with the anti-aircraft command. Zuckerman and Bernal had moved from Civil Defense to Mountbatten's Combined Operations.

Scientists now sat with the top planners and with the War Cabinet. This was something different from acting as specialists in new weaponry or, as many other scientists were doing, organizing the effective use of scientifically produced systems, such as radar and anti-aircraft predictors, the forerunners of the computers, or, in Tube Alloys (the code name for Britain's nuclear activities) devising the atomic bomb.

What had changed was the role of the scientist. When Blackett was given the top military award of the United States, his citation said that he had shown "how the scientist can encourage numerical thinking on operational matters and so avoid running the war by gusts of emotion." Measurements and calculations, methodology, had replaced hunches. We called it "Operational Research" (the Americans adapted it as "Operations Research").

It began with radar. Sir Robert Watson Watt and his team had produced the instrumentation and the system for detecting incoming enemy aircraft. In the laboratory, in the workshops, and in the hands of physicists on location, the equipment was efficient, but in practice things were going wrong. Watson Watt sent out physicists to check up. Sometimes they found the physical answers, but often the exact scientists were baffled. Then Watson Watt started relying on biologists, more used to a greater number of variables, and gradually the answers were found. The gremlins were not in the equipment. They were more often in the military setup, the book of rules, or the breakdown of human relationships — the failure of the mail delivery at some remote anti-aircraft battery, or not enough sugar in the mess tea.

The scientists just looked at everything and asked the right questions. They found strange things. For instance, there was always an extra man on the battery strength. He was a leftover from the horse artillery — the man who held the heads of the horses! A geneticist, taken away from his banana flies, was turned loose on Coastal Command. He doubled the number of sorties flown without adding a man or a machine or overtaxing the personnel. He just went through the book of rules and the system of inspections and he asked, why this? and why that? Blackett produced the methodology for the Battle of the Atlantic. Zuckerman reduced the island of Pantelleria, on the flank of the invasion of Sicily, without any troops fighting their way ashore, merely with

pencil and paper and a system for calculating fire-power.

Operational Research was the forerunner of Organization and Method and Systems Analysis. It was the application of method to complicated situations and, considerably, to human relationships.



At the end of the war, the scientists were riding high, wide, and handsome. They had made their mark. They were right inside the military and government establishment. The generals were positively deferential; they were ready to buy any new ideas, and there were scientists only too ready to dream them up without much regard to cost or benefit, and with expensive mistakes. Governments set up their scientific advisory units and science policy councils. The Science of Science =  $S^2$  was accepted, and C.P. Snow could write *The Corridors of Power*.

But having gained access to the corridors of power, scientists could not find their way to the men's room. The civil servants, knowing nothing about science, were prepared to humor them but not to let them run the show. The politicians in office were deferential, even gullible, but, by and large, they did not know the right questions to ask. When the British House of Commons set up its Select Committee on Science and Technology I welcomed it as a piece of adult education, on-the-job training for Members of Parliament, but I said it would not be really effective until the M.P.'s instead of saying, "Excuse me, professor, I know you are a Fellow of the Royal Society and you know all about the Theory of Thingummy and I, Uriah Heep, M.P., am just a poor ignorant critter when it comes to science. . . ." could get to the stage of saying, "Come off it, Smith, you've got your figures wrong. . . ."

In Britain, scientists who have got into Parliament or into government have not been much of a success. Indeed Lord Cherwell (Professor Lindemann of the Clarendon Laboratory, Oxford) in Churchill's War Cabinet was a disaster. He could silence any opposition with a slide rule. He blinded his colleagues with figures. He was responsible for area-bombing which meant that if the military targets, such as industrial plants, could not be pinpointed, the bombing of workers' homes would serve just as well in reducing production. He produced figures to prove it. Both Henry Tizard at the Air Ministry and Blackett at the Admiralty countered with figures which showed that Cherwell was out by orders of magnitude. From



political warfare, I fired in a memorandum showing that during the blitz of London, Coventry, Clydeside, and elsewhere, bombing of civilian targets increased instead of reduced morale. The homeless workers would travel tens of miles from their evacuation centers to put more into the job on a to-hell-with-Hitler principle. Production went up. The same thing happened in Germany, but Cherwell's strategy led to the fire storms of Hamburg and the horrors of Dres-

Cherwell's proposals." The bomb he was endorsing was a thousand times more powerful than the chemical explosives with which he was not dissatisfied.

Then there was the famous confrontation between Churchill and Niels Bohr, the doyen of the nuclear scientists. We had smuggled Bohr out of occupied Denmark in a rowboat with muffled oars and had flown him in the bomb bay of a Mosquito aircraft from Sweden to Britain. He had gone to the United States to see, in the Manhattan Atom Bomb project, the effects of the work to which he had importantly contributed. He was appalled by the prospects and approached Roosevelt with a plea for the internationalization of atomic energy before any dropping of the bomb should be considered. Roosevelt gave him a sympathetic hearing but said he must go to London and convince Churchill. The interview was a failure. Churchill wrote a memorandum after it saying that Bohr should be warned that he was "on the verge of mortal crimes" merely in discussing the bomb and added, "How did Professor Bohr get into this business anyway?"

After the war, when the scientists had acquired authority and glamour, governments appointed scientific advisors (in Britain, Solly Zuckerman succeeded Sir Henry Tizard) and set up science-policy councils. I won't speculate on how this worked elsewhere, but in Britain I was disappointed. I said that most of my adult life I had been trying to get science into politics and, instead, had got politics into science. My complaint was that the scientists, now in a powerful position to influence decision-making in the public interest and with social wisdom, were the salesmen of science itself.

I made myself thoroughly unpopular with my scientific friends when I opposed the nuclear super-accelerator. In 1945 the safebreakers had broken open the secret of the nucleus before the locksmiths knew how it worked. But they had produced the fission bomb and the H-bomb, and governments were awesomely impressed. The nuclear physicists were at the top of the hierarchy of science and, for a long time, could ask for and get what they wanted. They wanted to know the structure of the nucleus — the wards of the lock they had broken — and to identify the subatomic particles, and the giant accelerators by which they did this got bigger and bigger and they got more and more particles. I remember at the Weizmann Institute in Israel Robert Oppenheimer rushing backward and forward along the podium covering the blackboard with all the particles. There were so many that they did not know what to do with



den which in terms of casualties were worse than Hiroshima and Nagasaki.

On the other hand, I heard Clement Attlee, who as Prime Minister was made a grace-and-favor Fellow of the Royal Society, boast at the Royal Society banquet, "Of course, I know nothing at all about science." And next day he went off to argue about nuclear energy with President Truman.

Earlier, Churchill, in a memorandum to the Chiefs of Staff approving the atom bomb project, had said: "Although I am not dissatisfied with our present explosives, I suggest we proceed along the lines of Lord

them. They were like a small boy dismantling a watch and finding when he reassembled it that he had enough over to make another one. They could not produce a unified theory. So they were asking for an even bigger accelerator which was to be a joint European venture costing £130 million.

The Americans and the Russians each had such an accelerator. I asked a physicist friend of mine what he wanted it for and he said, "To find the quark," and I innocently asked, "What's a quark?" He answered, "Isn't that a silly question! If we knew what it is, we wouldn't need £130 million!" I opposed it in the House of Lords. I said that research was becoming a substitute for thinking. When they got into a jam, they asked for more equipment. I suggested that their nuclear dilemma was like the crisis in conventional physics in 1900 when Max Planck, with pencil and paper, got the physicists out of their jam by propounding the quantum theory. I thought we had lost our sense of proportion and our sense of values just as I thought the immeasurably more expensive man-on-the-moon project was a mistake, when there were so many human survival problems needing investigation here on earth.



I could write a book on what the scientific establishment did to the World Health Research Center. Let me recall the proposal and its history:

At the Sixteenth World Health Assembly, the director-general of WHO, Dr. Marcolino Candau, pointed out that there were fundamental health and biomedical problems which were of immediate concern to the present generation and might well determine the future of mankind. He cited examples: the great potential dangers of chemical contamination of air, water, and foodstuffs; the possible ill effects of new medicaments and biological products (of which the thalidomide disaster had already provided a tragic instance); and the problems of industrial wastes and the indiscriminate use of pesticides. He pointed out what was true then — ten years ago — and is still true today: that we know comparatively little about the effect of such substances on the living body or on unborn generations.

There was, Candau insisted (years before Stockholm), a most important need for a world communications center to disseminate information about the work, and the results of research on these matters. The center would require the very latest systems of computing and communications. To promote such

knowledge, nations would have to cooperate in pooling knowledge without duplicating or superseding national activities. Within this framework, the basic health and biomedical problems which concern the whole world related to the health and disease patterns of population groups and include the range of communicable and noncommunicable diseases. There had to be fundamental biological studies of genetic and molecular mechanisms and their effects on living organisms. There had to be a clearinghouse for such concerns, with a special relevance to the neglected problems of developing countries. He was asking for a World Center of Medical Research on a tripod of communications epidemiology research.

I became a vociferous advocate of the World Health Center wherever it might be sited, but I was then the professor of international relations at the University of Edinburgh and I wanted the U.K. government to commit itself to the idea and not just give lip service and, if it came about, merely pay its dues. I went all out to get the World Health Center in Scotland. I could argue, for the edification of my colleagues in the University of Edinburgh, that we did have one of the more famous medical schools in the world; that we had a cluster of medical research units; and that we had ready access to medical library facilities.

The lay response was immediate. I had the offer of five magnificent sites — county councils competing to offer them freely — within easy reach of Edinburgh.

I then carried the case to the government and ran into opposition of the most devious kind. The first hurdle was the objection, which had existed since the beginnings of the United Nations, to giving the U.N. or its agencies any management of, or facilities for, institutionalized research. Governments in the advanced countries with their own national research institutes and substantial research and development budgets had taken the line that if the U.N. and the agencies wanted to know they had only to ask. The U.K. Medical Research Council line was that such funds as WHO might acquire would be better spent in "investing in excellence" — endowing individuals or units already producing results (in other words, backing certainties). This had been, of course, substantially the practice of the Medical Research Council — with spectacular results in the case of the M.R.C. group at Cambridge which collected six Nobel Prizes in the DNA and molecular biology field. But as I pointed out at the time, this ignored a fact in M.R.C.'s own history: it had had to establish the National Institute of Medical Research because

medical serendipity and flashes of insights and genius just were not covering the broad base of recognizable problems. In other words, pure research — natural curiosity while indispensable and praiseworthy — is no substitute for basic, or oriented, research, which deliberately provides the reservoir of research for definable problems. That was what Dr. Candau was explicitly asking for.

Another argument was that it would mean a diversion of high-level scientists. What Dr. Candau was proposing was a convergence of high-level scientists, the best that could be got. I have no doubt at all that that was the crux of the M.R.C. opposition — that M.R.C. would lose several of its blue-ribbon scientists. Indeed, several outstanding ones had declared their willingness.

With great restraint, I shall not pursue the who-dun-it-to-WHO. (Hilary Rose in *Minerva* followed it through and the British role was deplorable.) But the United States with the National Institutes of Health followed suit. General de Gaulle created a major diversion by offering half of one per cent of the French arms budget to finance an international cancer research center and, without any reflection on the intrinsic merits of the proposal on the subsequent work at Lyons and its international composition and relationship to WHO, it provided the *coup de grâce* to Candau's grand design. More regrettable was the persuasion of the less developed countries that the center would have been at the expense of public-health assistance to them, when, in fact, it would have been doing research into their still unsolved problems.

Looking back, looking at Stockholm which underscored what Dr. Candau was anticipating, and looking at the still unanswered questions for which he was seeking answers, I regard the history of the World Health Center as the corruption of science policy and an affront to human reason.

Reverting to the man-on-the-moon program: I know you cannot eat space hardware nor turn electrons into food calories so, as I have been told so often, to equate the space program with the hunger problem seems to be the contradiction of unlikes. But is it? The human ingenuity which goes into the one could go into the other. A pupil with a scientific bent will be making his choices at school. He can be influenced to go into physics or chemistry or biology, into engineering or into agronomy, but his career is likely to

be determined by the prevailing cult or the job opportunities of a crash program.

I had occasion to deliver an oration at the theater of Apollo at Delphi where Pythia, the soothsayer, delivered her prophecies. My theme was the modern oracles, alias the trend-setters. I called them the Pythons of the Pentagon and the Sibyls of Systems, the numbers men and their numbers machines. Their self-fulfilling prophecies derive not from trance-making effluvia from the rocks at Delphi, but from the computer. They extrapolate their statistics and, if they are in a position to influence the decision-takers by the oracular authority of numbers, they confirm the trends they are predicting.

I had in my audience the Python of the Pentagon, Herman Kahn, who wrote *Thinking About the Unthinkable* and who applied the games theory to nuclear war, with the terrifying gobbledygook of "first strike," "second strike," and "acceptable casualties." He and others like him set the strategy of the balance of terror. They give to their calculations the authority of science. My native poet Robert Burns wrote "Facts are chieftains that winna ding" ("You cannot argue with facts"), but he also wrote "The best laid schemes o' mice and men gang aft a-gley." In the same way, trends which seem numerically inevitable can get us in a mess. We do not have to accept trends which are socially undesirable; we do not have to plan for them; we can plan against them. But if we abdicate our judgments to the computers we have only ourselves to blame. We need the third dimension  $S^3$  — the social and moral evaluations.

The philosopher David Hume made the distinction between the "is" and the "ought"; science is the "is," and moral philosophy is the "ought." We don't have to use a discovery or a technological invention just because it is available. We can decide what we *ought* to do about it. But the scientists and the moral philosophers so rarely sit down in the same room. The fault is less with science than with the humanities.

I was at a conference on the future of the American humanities at which only two papers defined the role of the humanities in a technologically oppressive world, and both of them were written by scientists. The others were trying to find "relevance," in the young people's sense. They were trying to find interdisciplinary projects which would prove that they were still "with it," but they deplored the fact that, in all their efforts, the two parties — science and the humanities — were barely on speaking terms because they did not speak the same language. That was because they were isolating and artifacting situ-

ations. Interdisciplinary work must be self-evident, not frivolously contrived. The cooperation on the environment is a good example of genuine interdisciplinary work and it is a going concern.

That was when I suggested the science of the science of science. Science is knowledge, not wisdom. Wisdom is knowledge tempered by judgment. But wisdom cannot be exercised without knowledge. If the humanities plead ignorance of science, then science must instruct the wise men.

Let us consider a profound ethical dilemma which must be resolved. It concerns the bioengineering revolution. I use the word "engineering" deliberately. We can reconstruct a human being from spare parts.

Even before kidney transplants, people had an ethical unease about renal dialysis, the artificial kidney machine. Unquestionably it was a great technical advance, making it possible to treat kidney dysfunctions from which thousands die. The machine was, and is, expensive and involves intensive care of the patient by doctors and nurses. For whom the machine? In the United States the dilemma was evaded but not solved by having lay panels, like clinical juries, making life-or-death choices. In Britain, where the National Health Service entitles everyone, rich or poor, to have access to any necessary treatment, the responsibility rests on the medical staff. It was, still is, and will continue to be, a difficult decision. Assume that some V.I.P., a famous man of advanced years, and a boy of say, fifteen, both require the only available machine, to whom would it be allocated — the living "museum piece" whose obituary would thus be postponed, or a boy with an unpredictable future; he might live to be a Nobel Prize winner or a criminal. A cynic would give you the answer.

With the discovery of chemical means of counteracting immunological rejections, it became possible to transplant actual organs. The natural defensive system by which the body — just as it can repel germs — can reject alien, genetically incompatible tissue, could now be repressed so that the graft would "take." Thus a stranger's kidney could now be transferred to a patient. Again, to whom a suitable kidney? That led to heart transplants and to heart and lung transplants. An essential condition of the operation was that the organs must be "fresh." To the point of scandal we have had a near Burke-and-Hare situation. (Burke and Hare were the Edinburgh grave robbers who supplied Knox, the university anatomist, with cadavers for dissection and finished up by providing warm corpses.) Doctors, collaborating with heart surgeons, would remove the heart at the mo-

ment of "death" and rush it to the heart-surgery theater.

But what is the moment of "death"? The old method of holding a mirror to the mouth to get the mist of breathing has long been discarded. The pulse, or the beating of the heart, is no longer the test. The test now is the encephalograph to detect the brain waves. If the signal is weak in a hopelessly injured casualty, then death is imminent and the patient expendable. If there is no signal, then the patient is dead. Thus the seat of life has become the brain. Ac-



ording to the signals of the encephalograph, the instant for removal of the heart can be determined and the organ rushed to the heart surgeon.

Apart from the ethics of the decision, this raises the question: What is the ultimate object of the entire exercise? Assume, (and it is a safe assumption) that any and every organ presently will be capable of being transplanted and that a human artifact could be reconstituted out of spare parts. To what end? Presumably to service the brain, the vestigial remains of life. But the brain, however marvelous, is a biological computer. One can debate whether it is the mind. It is certainly not the human personality. Our personality is compounded from the chemistry and the responses of the whole body — not just the

endocrines, but our lymph glands and our gastric propensities as well.

I have still not got a satisfactory answer from my organ-manipulative friends as to what would happen, for instance, to me, an entirely nonbelligerent person, if I received a kidney from a pugilist, complete with an adrenal gland which provided the aggressiveness. We are not only remaking a machine of cells and tissues, we are remaking a personality. The question arises as to the identity of a person modified by surgical plumbing. What is the legal, moral, or psychiatric identity of a human so altered by medical manipulation that he has become an artifact?

There is another severely practical but profoundly important question: What is the cost in money, and also in human sacrifice, of the diversion of scarce facilities and scarcer medical manpower to the intensive care of those "interesting cases"? Even those who get it are a tiny fraction of those who may need it. Meanwhile, thousands, tens of thousands, hundreds of thousands and, in the wider world, millions of useful lives are being wasted, and an immense amount of suffering is being endured because of the lack of conventional treatment.

There is another dilemma. With all this "doing over," with plutonium pacemakers being implanted and attached to the heart; with the promise of miniature computers to be attached to our brain to compensate our failing memories; with electronic stimulators promised to enliven our "pleasure centers"; with all the advances in biochemistry and geriatric care and with the protection against and treatment of infectious diseases we can extend the span of life. We can keep people alive indefinitely. This is a social problem of the first magnitude. It is also a personal problem for all of us because it involves a basic human right — the right to live or die with dignity.

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There is a need for a consensus of conscience; an international tribunal of ethics; a surveillance (which need not be suppression) of the kind of things that are happening; and a new personal ethic for doctors and medical scientists. The Hippocratic oath, noble in its intention, is no longer adequate. It has been overtaken by events. The doctor, under the oath, pledges, "The regimen I adopt shall be for the benefit of my patients, according to my ability and judgment and not for their hurt or any wrong."

Today, the doctor's abilities far exceed his judgment because medical science and technology have

given him means to treat or operate on conditions which would have been intractable a few years ago. Indeed, he could construe his Hippocratic oath as making it incumbent upon him to apply any knowledge he has, down to the most recent discovery reported in the latest medical journal, or the newest drug offered him by a pharmaceutical firm. In present circumstances, it is possible that he might be sued for professional incompetence or malpractice for withholding an up-to-date form of treatment. In the United States, a medical practitioner was successfully sued for damages for not prescribing a new drug of which he had never heard. The judgment which innovation imposes on a doctor exceeds the professional common sense on which the "good doctor" would rely in good conscience. In the words of the biophysicist, Leroy Augenstein, "the doctor is being asked to play God."

By our irresponsibility today we are reducing the options for posterity. We are mortgaging man's family estate, and nature may foreclose.

In the House of Lords, I have said, "pollution is a crime compounded of avarice and ignorance." Avarice because of the reckless use of resources and destruction of amenities and the environment for the sake of quick profits. Ignorance because industrialists do not bother to find out and anticipate the effects of their activities. But we who protest against such things are also accessories to the crime. If more and more people want more and more goods and want them cheap, then the abuses become more and more exaggerated. It is a question of cost. Pollution can be prevented by industrial precautions which are costly. When we insist upon them, industrialists tell us, "but you will price us out of business because our foreign competitors are not under those restrictions." Or the community picks up the social costs.

But I also try to remind businessmen that pollution is gross mismanagement, incompetence, and the squandering of real wealth. What we call fumes or effluent or slag heaps contain valuable materials. Even eutrophication, which we hear so much about, is too much nutrient (from domestic or industrial sewage) in the wrong places.

Suppose that by improving our behavior as tenants we get an extension of our lease of planet Earth, what sort of "posterity" do we see frequenting our secular hereafter? There are some people who would be prepared to write out the prescription now. Hitler's Reich, which was to last a thousand years, was to be peopled by blond Aryans by the simple expedient of eliminating or discouraging the propa-

gation of unwanted strains. With better intentions, and with more recent insight into genetic methods, there are those who would seek eugenic man by manipulating hereditary traits to remove those which are deleterious.

To me, the DNA or bioengineering age is even more portentous than the atomic age. We know what we did with the secret of matter, the energy within the nucleus; we exploded it as an apocalyptic bomb. Now we are dickering with the secret of life with no real understanding of the moral and ethical, or indeed the practical, consequences.

There is a "prescription for posterity" so fundamental that it transcends all such considerations. That is DNA. In DNA, the basic chemical of the cell, there is the genetic code which not only determines the construction of existing tissues but holds the instructions for heredity. The code can be deciphered.

The effect of this manipulation of the genes by giving them different DNA instructions can drastically alter the nature of cells and of the next generation.

It is true that with increasing knowledge of specific elements in the code — like deciphering a secret code in espionage — we could produce beneficial results. We could change the messages to cancer cells and make them harmless. We could change the genetic instructions which at present produce hereditary diseases. We could alter the coding of plants so that they would yield more food. But we could produce man-made viruses and bacteria for use in biological warfare against which there would be no immunological protection. The nature of men and women could be changed.

Who will write such prescriptions? Not the original discoverers nor the Nobel Prize winners. They are dismayed by the possibilities of what they produced in pursuit of human knowledge and have turned to other researches, saying in one way or another, "Do not tamper with heredity. The mistakes will be irreversible." But knowledge once given cannot be taken back. There will be others who will try to write prescriptions for posterity, spelled out in the DNA code. There must be another kind of code — a code of conduct for those who tamper with codes.



The medieval alchemists (actually much maligned) were accused of black magic. Their propensity for evil was far less than the best-intentioned scientists of today because they were too innocent to foresee

the abuse of their discoveries. Einstein, whose equation  $E=mc^2$  spelled out the release of atomic energy, said, when confronted with the horrific consequences of the bomb, "I wish I had become a blacksmith." Scientists are the trustees of knowledge but in the words of the Latin tag "*Quis custodiet ipsos custodes?*" "Who takes care of the caretakers?" The answer is "No one."

Science is a human right. Unless one is superstitious there is nothing wrong with natural curiosity. It is what is done with the knowledge inquisitively acquired which creates the difficulty. For knowledge is not wisdom; wisdom is knowledge tempered by judgment. We go back to David Hume's "is" and "ought."

Sir Macfarlane Burnet, who won the Nobel Prize in 1960 for his work on tissue transplants and who developed a crisis of conscience about the possible applications, said: "It seems almost indecent even to hint that, as far as medicine is concerned, molecular biology may be an evil thing." The scientists who won the Nobel Prizes for DNA have similarly recoiled. James Watson, appeared before a United States congressional committee to urge that restrictions be imposed on human cell manipulation. Francis Crick, confronted with the wilder genetic possibilities, urged people "not to stand for them." Maurice Wilkins became president of the British Society for the Social Responsibilities of Science.

George Beadle pleaded with his colleagues in the DNA field not to lend themselves to gene manipulation because "the effects will be irreversible." Salvador Luria declared "geneticists are not yet ready to conquer the earth, either for good or evil." Max Perutz warned against fertilizing human eggs in test tubes because of the great and quite unjustified risks of producing a defective embryo. One Nobel laureate after another has served notice. The operative phrase is "unjustified risks."

Somehow we must bring together a body of wise men from all over the world and, from diverse philosophies and cultures, consider the inventory of opportunities but also of mischief, actual or potential. They must give us the basis for establishing the "is" and the "ought." They must produce instruments and institutions, legal and professional, which can apply ethical restraints. They must know, but in that knowledge they must judge in the best interests of mankind.

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*Lord Ritchie-Calder is a Senior Fellow of the Center. This article was the Medal Lecture at the World Health Organization Medical Society meeting in Geneva.*

*An interview with R. J. Zwi Werblowsky*

# ZEN

*R. J. Zwi Werblowsky, professor of comparative religion since 1956 at the Hebrew University of Jerusalem, was born in Germany in 1924 and studied in London and Geneva. He has been a visiting professor at Brown University, Harvard University, the University of Notre Dame, the University of Chicago, and the Institute of Japanese Classics and Culture at Kokugakuin University, Tokyo. He has translated Sabbatai Sevi: The Mystical Messiah, by Gershom Scholem. His latest book Beyond Tradition and Modernity: Changing Religions in a Changing World, will be published this year, and he is now writing a history of Judaism. He spent part of his sabbatical leave from Hebrew University as a Visiting Fellow at the Center last year. This interview was conducted by Donald McDonald, editor of THE CENTER MAGAZINE.*

**Q:** *Professor Werblowsky, given your background and work, how, and under what circumstances, did you get interested in Zen Buddhism?*

WERBLOWSKY: I am officially listed as a professor of comparative religion, but that term is a barbarian neologism. I admit that it is also a convenient shorthand for the more cumbersome "comparative study of religions." As a student of the subject, I am interested in all religions. Theoretically and ideally, I should be equally interested in all religions, and up to a point there is little difference in my interest in Christianity, Judaism, Nepalese Hinduism, and the religion of the Bororo tribe in Brazil. Nevertheless, in the course of one's life and studies, one develops special interests, special likes, very often special dis-

likes, for particular cultural, artistic, and religious phenomena. I have always had an interest in Far Eastern religions, not least for purely methodological reasons. Unlike the so-called primitive religions of Africa, Australia, or South America, Eastern religions are in some respect like Western religions: they possess a highly developed and sophisticated literary tradition that goes back thousands of years. Moreover, the Orient, in spite of its relative tolerance, has had competing religions in India as well as in China: just think of Taoism, Confucianism, and Buddhism. Buddhism was experienced by the Chinese as a foreign religion, a kind of invasion, just as the Japanese, with their original religion subsequently called Shinto, experienced Buddhism as a Chinese cultural invasion, and just as

many non-Western countries think of Christianity as a Western invasion.

**Q:** *So your interest in Zen began as a scholarly inquiry.*

WERBLOWSKY: Yes. Last but not least because Oriental religions illustrate the cultural process often called syncretism. How do people try to preserve their own religious traditions in situations of culture-conflict? How do the old and the new forms of religion amalgamate? How have Eastern religions reacted to the impact of modernization since the nineteenth century?

I came to study in Japan because for most of us China was a closed country. I was fortunate to have good personal and academic connections in Japan, and this also enabled me to live for long periods in Zen monasteries there and to study them as a participant observer.

**Q:** *When did you start this?*

WERBLOWSKY: I started my Zen studies in 1960 or 1961. Since then, I have been going back to Japan regularly, keeping up my contacts with these Zen circles. Of course, Zen is just one among many Buddhist (Mahayana-type) denominations. Yet its emphasis on meditation, its relatively less magico-ritualistic character, its emphasis on direct experience and



spiritual realization, its unique aesthetic tradition — all these make it sufficiently distinct from other forms of Buddhism to merit the special interest of the comparative religionist who wants to understand why Zen has had such a strong impact on the West. Zen has become a significant element in certain forms of Western cultural and spiritual protest. The entrance of Eastern ideas into the West and the reception of those ideas by disaffected and alienated Westerners adds to my interest in Zen.

*Q: What accounts for the attraction of Zen to the West? Psychologists such as Erich Fromm, Carl Jung, and Karen Horney, and philosophers like William Barrett have been attracted to Zen. Why?*

WERBLOWSKY: There are several explanations, and they are not mutually exclusive. Let me begin with the nastiest and most uncharitable ones. In the first place, fascination with Zen is based on ignorance. We all tend to be easily impressed by the outward appearance of anything strange, foreign, and exotic. Nobody who lives in a Christian environment believes that simply by looking at some of the outward manifestations of Christianity, or listening to edifying talk about faith and hope and charity, or making an occasional reference to Saint Francis of Assisi and Pope John XXIII, we have come anywhere close to the historical reality of Christianity. Westerners are aware of the enormous amount of Scholastic philosophy and dogmatic theology in Christianity, as well as all its implications — in terms of worldview, philosophy, and morality — which many of us refuse to accept, whether it is birth control, ecclesiastical hierarchy, or whatever — not to speak of the Crusades, the Inquisition, and religious wars. You just know too much about Christianity to be able to swallow it all, hook, line, and sinker, and go mooning about this wonderful religion of love and peace and forgiveness.

But when a religion is strange and exotic, one can be taken in easily by its aesthetic appearance. I don't think that even one per cent of the Westerners who write on Zen know that Zen Buddhism has a Scholastic philosophy

that outdoes that of Saint Thomas Aquinas and all the other Christian Scholastics. Struggling in the strait-jacket of their industrial and mechanized society, Westerners are also taken in by the allegedly direct spontaneity of Zen life, but they do not realize that life in a typical Zen monastery is as strictly regulated and disciplined as in any Catholic monastery. So a great deal of the attractiveness of Zen in the West is based simply on ignorance and on the fascination with the exotic which one interprets in one's own terms without bothering too much about how Zen really functions. That is one explanation. It certainly is not the whole truth.

*Q: What other reasons do you see for Zen's attractiveness in the West?*

WERBLOWSKY: Zen strongly emphasizes the spiritual direction in human life, but it does so in terms that are different from the traditional forms of spiritual expression with which Westerners are acquainted — and dissatisfied. Whenever people look for a form of expression, they not only need an idiom of affirmation but also, to quote the Chicago sociologist Edward Shils, an "idiom of rejection." So they fasten on something new, and that makes it easier to reject the old. There are people who want to reject certain Western norms — e.g., "achievement," "success," "making it," the whole rat race. Also, in terms of spirituality, commitment to a very personal God becomes difficult, if not downright impossible, for many people. For them, spirituality is a relatedness to a cosmic reality rather than to the oversized father-type of figure which traditional Christianity tended to encourage. Some Westerners feel that in Zen there is a possibility for a deepened spirituality because, ideally, all the aspects of one's personality — which Western life tends to scatter all over the place — are brought together, enabling one to penetrate to the essence of one's being.

*Q: Zen's attractiveness, then, is not due solely to protest and alienation in the West.*

WERBLOWSKY: That's right. And, of course, the comparative religionist will

ask whether this is unique to Zen. Why do people bother more about Zen than about certain forms of Theravada Buddhism, or of any of the other sects of Mahayana Buddhism? For one thing, Zen has been lucky; it has had a very eloquent and persuasive propagandist in the person of the late Professor D. T. Suzuki. I certainly do not believe that what Suzuki wrote represents traditional, orthodox Zen. It is Zen refurbished for export and for consumption on the Western market.

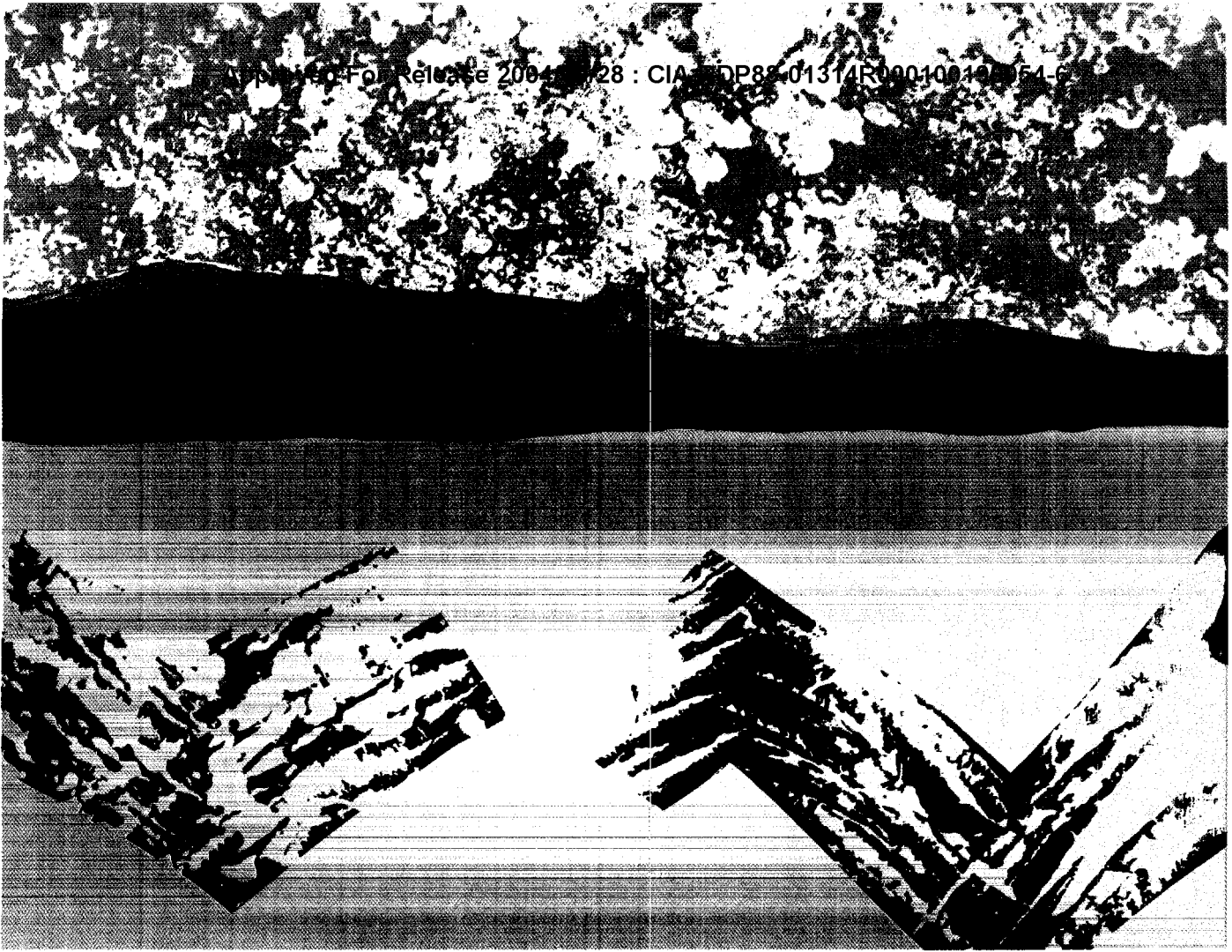
*Q: Do others in Japan feel that way about Suzuki, too?*

WERBLOWSKY: Yes. But, still, in fairness to Suzuki, there is no reason why a religion, or a form of spirituality, in order to exert an influence — even a positive influence — must remain unchanged, orthodox article, exactly as it used to be practiced and taught two hundred years ago. All religions change. After all, the Christianity of Luther or Calvin is different from that of the Christianity of Saint Thomas Aquinas, but nobody, except perhaps a very dogmatic and intransigent Catholic diehard, would say it is less Christian because of that. So why shouldn't a religion — in this case Zen Buddhism — change in the twentieth century? It changes because original minds reinterpret it to make it acceptable to others. It is only pedantic professors of history who say that because twentieth-century Zen is not identical to eighteenth-century Zen, it is not Zen. Religion is open-ended, and professors of history have no business telling a religion how it ought to develop.

*Q: Cardinal Newman's essay on the development of doctrine raised the question of whether there is such a thing as an unchanging doctrinal core and how one can have doctrinal development without doctrinal erosion.*

WERBLOWSKY: The doctrinal core is a difficult business. Zen has, as I said, a highly developed "Scholastic philosophy," it has its own doctrines which almost none of the Zen practitioners in the West know. Buddhist philosophy is a most intractable and difficult subject. It is far easier for Western

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students to deal with Islamic or Christian philosophy than to understand a Buddhist philosophy.

*Q: The Sutras aren't all that clear?*

WERBLOWSKY: They are not clear at all. A Sutra can be a very long or a very brief text; sometimes very repetitive, sometimes very dense. The question is, what are the commentaries on the text that determine your understanding? You can use a Sutra the way you use Saint John's Gospel. A reading of Saint John's Gospel does not give you a clue to what two thousand years of subsequent Christian theology have made of that text. Saint John's Gospel does not explain to you the difference between Paul Tillich and Karl Barth, although both men used the same text.

The curious thing is that Western people are far less interested in the doctrine than in the discipline and in what one might call the "atmospherics" of Zen. A different kind of spiri-

tual atmosphere has enveloped them; that is especially noticeable in the case of great Christian spiritual figures. I am talking not about superficial syncretists, but about very committed Christians, among them many monks. These are people who do not fool around; they get up at four o'clock every morning to celebrate Mass, people like the late Thomas Merton, and so many others. They are fascinated by Zen and feel that Zen can enrich their Christian spirituality. Obviously their reference is not so much to doctrine, but to a style of life, to a mentality, to a kind of atmosphere in which, if I may say so, the spiritual metabolism functions.

*Q: The fact that Christian monks are attracted to Zen also indicates that they are not satisfied. You knew Merton personally, did you not?*

WERBLOWSKY: Yes. We were friends.

*Q: There were things in Merton's own*

*Cistercian tradition with which he was not completely satisfied. Otherwise he would not have been looking for a completion, fulfillment, an integration.*

WERBLOWSKY: Yes. I always come back to this idiom-of-rejection business. Every society, every civilization, every culture reaches critical moments when people are seized by an acute sense of dissatisfaction. That is the nature of human existence. It is the nature of every culture.

*Q: Is that true of the Buddhists in general, and of the Zen Buddhists in China and Japan?*

WERBLOWSKY: Yes, they, too, are aware that they are passing through a crisis.

*Q: One does not see them attracted to or adopting Christianity, though.*

WERBLOWSKY: There were periods, until the Japanese government

clamped down, when many Japanese seemed to adopt a very positive attitude to Christianity, in spite of their traditional xenophobia. This was due in part to the fact that Christianity represented the modern world and, as such, it symbolized for them the rejection of the old-fashioned, feudal, traditional, hidebound, petrified Japanese system. The Japanese went through such periods, just as in the average nineteenth-century French village the bulk of the population was Catholic but the local "progressive" intellectuals — e.g., the notary, the doctor, the pharmacist — were agnostics. There were periods in nineteenth-century Japan when the equivalents to the notary, pharmacist, and doctor were Christians, or pro-Christian. That was their way of protesting what they considered to be the petrification and medievalism of Japanese social structures. Nowadays this danger is less great in the East, because they are shielded from Christian influences by one very important emotional element — anti-Westernism. The West now stands for everything evil, wicked, colonialist, capitalist, imperialist; and Christianity is identified, to a large extent, with the West.

*Q: But Japan has become Westernized, at least in her industries.*

WERBLOWSKY: Yes. But most anti-Western nations now distinguish between Westernization and modernization. For them, the challenge is to demonstrate that they can modernize their technology without Westernizing other areas of their life. One can discern this even in such matters as clothing fashions. There was a time when everybody in Japan wore Western dress. Then you got periods when the kimono made a comeback, because people wanted to demonstrate and preserve their own cultural symbols. Such things are useful sociological indices.

*Q: Is part of the attractiveness of Zen, in the West, that Westerners see it as a total view, a comprehensive philosophy and religion? Perhaps in these terms it has been oversold, or overbought. In other words we have people like D. T. Suzuki, who say, "the true object of Zen is the unfold-*

*ing of man's inner life." But that can be said of any religion. Again, Nancy Wilson Ross will say that the core of Zen, the key, is "direct immediate perception, direct seeing into the object." That sounds to me like the function of the poet, of the artist — to look directly into things. Others cite the intuitional approach of Zen, contrasted with the Western approach which is dualistic, dialectical. The intuitional is attractive to the West because it seems to promise that one will experience directly and immediately all of reality without having to go through the laborious process — identified with the West — of scientific observation and logical, syllogistic reasoning. Zen seems to offer, if not an instant wisdom, a unitive concept of life and self that is appealing.*

WERBLOWSKY: Your observation brings us back to the subject of Zen Buddhism's specific doctrines. That life feeling; that general attitude of relatedness to things; and that penetration to the inner core of one's being — all these are claimed to be non-Western because people are hung up on the idea that the West has become too rational and intellectualized, whereas Zen tries to make you live from the center of your being, or, as the Japanese would say, from your belly.

But if you follow up this argument, you discover that the doctrine behind the Zen approach to reality is radical monism. And monism is a philosophical doctrine which is well-known in the West. On the basis of Zen monism you say that there is only one Buddha nature; it is everything and in everything. You remember the famous koan: "Does a dog have Buddha-nature?" The point here is that you cannot answer "yes." The question does not invite a silly pseudo-monistic reply. The question is a koan — to be solved in an experience of enlightenment and not in philosophical affirmation. But I wonder how many of the Western Zen addicts — I would not call them adepts, but addicts — have ever bothered to find out whether this is, or is not, more or less the same as Spinoza's *Deus sive natura*? But, then, if you quote Spinoza you are still in the Western tradition, and that, of course, will not serve those who need

an idiom of rejection. To be sure, Spinoza was a philosopher and he did not create a spiritual or religious discipline, whereas Zen is a spiritual discipline. But you are right. There is in the West a revulsion from all kinds of dualism — spirit and flesh, mind and matter, body and soul. There is a quest for a new unity; it is a very strong desire.

Of course, any variety of radical monism poses serious problems. The experience of good and evil — and no century has had more experience of evil than ours — brings every human being up, bang, with his nose against an irreducible dualism. Either you distinguish between good and evil, or you claim that you are beyond good and evil. It is a fact, for instance, that the leaders of the Japanese military clique during World War II prided themselves on being disciples of Zen masters. The relationship of the Samurai class to certain teachers of Zen is generally admitted. And the man who wrote one of the best-sellers on Zen (*Zen in the Art of Archery*) which was eagerly gobbled up by all Zen-enthusiasts, Eugen Herrigel, was a convinced Nazi and follower of Hitler. Can you be a genuine Zen disciple, or claim to have experienced enlightenment, and at the same time follow a "leader" who murdered millions of human beings in gas chambers? The moral dimension of the whole question of dualism and monism is a serious one.

*Q: One of the claims one keeps running into in Zen literature is that it is an "everyday" thing, that it is very concrete, very practical. Historically how has Zen worked out in the areas of social morality, social justice? Has it had any directive, ameliorative, or therapeutic influence on personal and social behavior?*

WERBLOWSKY: On the spiritual behavior of individuals — and the spiritual spills over into moral behavior — yes, it has. But I don't think Zen has had an effect in any socially significant way, which is not to say that it has not profoundly influenced Japanese culture.

*Q: One can encounter a lot of injustice in a Buddhist society?*

WERBLOWSKY: Yes, That is the one question which serious Christians ask about Zen. Of course, this kind of problem arises within every religion. Some religions grapple with it by descending to the most pedestrian details of life and regulating them the way certain forms of medieval Catholicism, or the Jewish religion, with its *halakhah* (the application of the Torah as God's law), regulate everything; or the way Islam, with its doctrine of the *fiqh* and *shari'ah* (the law of Allah, as interpreted and administered by the *ulama*, the learned men of the law), has been trying to do. Here, "religion" includes and regulates everything from liturgy and ritual to criminal cases and the law of divorce. But unless you have that kind of religion, the norms and details of one's behavior are left to one's spiritual maturity. And then you get such things as the social sphere (including social injustice) remaining unaffected by the spiritual life of religious individuals.

It would be unfair to suggest that Zen alone has that problem. Take a man like Martin Luther, who held that faith in Christ and in redemption through the cross was everything and that consequently all legal considerations fell away. Luther said, in so many words, do whatever you want to do and have faith in Christ.

*Q: Saint Augustine said, love God and do as you please.*

WERBLOWSKY: That's right. Luther merely took up and reemphasized Augustine's phrase. Luther's motto was, "sin boldly," because, after all, what else can you do? So the moment you pitch to a very high level of spiritual attainment and of self-realization in Buddhist terms, or of faith in Christ in Augustinian or Lutheran terms, you are bound to face the problem of immorality in social life. It is the theme of "moral man and immoral society" which was the title of one of Reinhold Niebuhr's books. But certainly Zen does not have a very good record in that respect.

*Q: I suppose Marx's criticism about religion being the opiate of the people would apply to Zen as well as to any religion, to the extent it can be applied at all — that, whether intended*

*or not, religion can be a kind of forgetfulness pill which will get one over the misery of living in an unjust society.*

WERBLOWSKY: Unfortunately that is true. If your ultimate goal is to attain inner liberty then the injustices you suffer become unimportant, but so also become the injustices which others suffer. I do not think that this is a necessary corollary of Buddhist Zen philosophy, but historically this has been one of its results.

*Q: Do you think that even sophisticated and knowledgeable Westerners, such as the philosopher William Barrett, have rejected too much of the Western tradition, Western philosophy and rational thinking? In one of his books, Barrett says that the West does not have much to recommend it. He says the Orientals have never succumbed to the Western error of dividing reality, to that dualism stemming from the Hebraic and Greek traditions — God and creature, law and member, spirit and flesh, mind and senses, reason and will. Barrett says the Orientals favored intuition over reason. He quotes Tillich, who said that the God "offered us by rational theology is no longer acceptable."*

WERBLOWSKY: Many of the critics of Western spirituality do tend to throw out the baby with the bath water. They are far too selective in their description of the vices of the West, just as they are far too selective and one-sided in their description of the virtues of the East. That is why, at the risk of being a bore, I always come back to the notion of the "idiom of rejection." Many critics of the West do not even bother to give a fair and balanced history of Western thought. They select the most one-sided expressions, overemphasize them, exaggerate them, and then use them as a foil. It is all very nice to speak about the unity of nature, the sense of unity of all beings, but no civilization is as bookish, as dry, as intellectualist as the Chinese. If you look at certain of the Taoist or Buddhist elements in it, then you can emphasize some of its attractive points. If you look at certain elements in the Confucian tradition, well, Confucianism is three times

as rationalist as anything Europe has ever produced.

Another example is the Western enthusiast who returns full of admiration for Japanese gardens. He sees the unity of nature and of man in the way Japanese architects eliminate all demarcation between house and garden. But the fact is that industrial America, even at its worst, has never exploited and polluted nature the way the Japanese have. Whole villages have died or become ill and disabled because of mercury pollution of Japanese rivers and coastal waters. And if in a few years there are no more whales in the seas, it is because the Japanese whaling industry has systematically disregarded all international agreements. Frankly speaking, I am sick and tired of this childish foolish, and at times even intellectually fraudulent, playing off of the exploitative, objectifying, manipulative, rationalist, Western mentality against the allegedly more intuitive and profound "unity with nature" ascribed to Oriental civilization.

*Q: It seems obvious that no country or culture or civilization is pure.*

WERBLOWSKY: Yes. I say this not in order to accuse the Japanese of ruthlessness, although other Asians themselves make such accusations. I simply give this example of the folly of Western enthusiasts coming back mooning about the "sense of unity of being" in the East and condemning the exploitation of nature in the West. Japan is the source of all Zen wisdom, but it is also the country in which such ecological mayhem, more appalling than anything in the West, is occurring.

*Q: You have written that there has been a decline in the vitality of Buddhism in Japan. Why is that?*

WERBLOWSKY: Some Japanese Buddhists asserted that the degeneration of Buddhism dates from Japan's modernization and the changes that were introduced in the wake of the Meiji restoration. At that time, Buddhism in Japan lost the special status and protection it had enjoyed for many centuries. In actual fact, Buddhism had degenerated in many ways long before that. To put the blame on



the Meiji reformation is sheer apologetic. The degeneration of Japanese Buddhism goes back at least three hundred years.

*Q: But why?*

WERBLOWSKY: In the main it was because of Buddhism's privileged status and its amalgamation with Japan's other traditional religion — Shinto. Hence it descended to a religion of folkloristic, as well as superstitious and magical practices.

*Q: Is this not the history of any religion, that it has its moments of vitality and decline?*

WERBLOWSKY: Yes. There are periods of rejuvenation, usually accompanied by the appearance of great spiritual geniuses. I suspect that today it is mainly the interest of the West in Zen which makes Zen people so conscious of their own spiritual heritage. It challenges them to bring out the best in Zen. But the real contribution will be

made ultimately by the sane and sober middle-of-the-roaders, those who see the weaknesses as well as the strengths of Zen, and who try to get the best of both traditions, or somehow to make that which is best in one tradition fruitful for the spiritual life of the other.

Here we come to the big question, which applies not only to Zen but also to Yoga and many other things: Can one simply separate the sociocultural and the spiritual aspects of a phenomenon and say, "I will accept this aspect, but not that one"? Cultural phenomena often possess an integral wholeness, so that it is difficult to separate out, or cut off, one part and say, "We will adopt that part but not the other." Yoga, for example, is an integral part of the total Indian philosophy and religion. So, in one view unless one becomes a Hindu, there is no point in going in for Yoga. Another view is that Yoga is simply a useful technique which may help to pep up one's physical and mental capacities, sharpen one's spiritual awareness of

certain dimensions of existence, and that one can achieve this without committing oneself to any of the Hindu philosophy underlying Yoga. If one uses Yoga merely as a technique, then it becomes almost another form of manipulation; it is no longer that ultimate, all-embracing, life-giving totality.

I have much sympathy for people who try to use Zen, who see it as a type of spirituality and existential awareness that can be injected into our Western civilization, rejuvenating it, making it more dynamic, vital, and meaningful, without adopting Buddhism as a total culture, a total religion, or a total philosophy. There is much that is attractive in this attitude. But I would not dare to predict whether it is feasible.

*Q: So you do not go along with even the tentatives of someone like the Benedictine monk, Dom Aelred Graham, who thinks that one may be able to combine Zen Buddhism and Catholicism.*



WERBLOWSKY: Yes, That is the one question which serious Christians ask about Zen. Of course, this kind of problem arises within every religion. Some religions grapple with it by descending to the most pedestrian details of life and regulating them the way certain forms of medieval Catholicism, or the Jewish religion, with its *halakhah* (the application of the Torah as God's law), regulate everything; or the way Islam, with its doctrine of the *fiqh* and *shari'a* (the law of Allah, as interpreted and administered by the *'ulama*, the learned men of the law), has been trying to do. Here, "religion" includes and regulates everything from liturgy and ritual to criminal cases and the law of divorce. But unless you have that kind of religion, the norms and details of one's behavior are left to one's spiritual maturity. And then you get such things as the social sphere (including social injustice) remaining unaffected by the spiritual life of religious individuals.

It would be unfair to suggest that Zen alone has that problem. Take a man like Martin Luther, who held that faith in Christ and in redemption through the cross was everything and that consequently all legal considerations fell away. Luther said, in so many words, do whatever you want to do and have faith in Christ.

*Q: Saint Augustine said, love God and do as you please.*

WERBLOWSKY: That's right. Luther merely took up and reemphasized Augustine's phrase. Luther's motto was, "sin boldly," because, after all, what else can you do? So the moment you pitch to a very high level of spiritual attainment and of self-realization in Buddhist terms, or of faith in Christ in Augustinian or Lutheran terms, you are bound to face the problem of immorality in social life. It is the theme of "moral man and immoral society" which was the title of one of Reinhold Niebuhr's books. But certainly Zen does not have a very good record in that respect.

*Q: I suppose Marx's criticism about religion being the opiate of the people would apply to Zen as well as to any religion, to the extent it can be applied at all — that, whether intended*

*or not, religion can be a kind of forgetfulness pill which will get one over the misery of living in an unjust society.*

WERBLOWSKY: Unfortunately that is true. If your ultimate goal is to attain inner liberty then the injustices you suffer become unimportant, but so also become the injustices which others suffer. I do not think that this is a necessary corollary of Buddhist Zen philosophy, but historically this has been one of its results.

*Q: Do you think that even sophisticated and knowledgeable Westerners, such as the philosopher William Barrett, have rejected too much of the Western tradition, Western philosophy and rational thinking? In one of his books, Barrett says that the West does not have much to recommend it. He says the Orientals have never succumbed to the Western error of dividing reality, to that dualism stemming from the Hebraic and Greek traditions — God and creature, law and member, spirit and flesh, mind and senses, reason and will. Barrett says the Orientals favored intuition over reason. He quotes Tillich, who said that the God "offered us by rational theology is no longer acceptable."*

WERBLOWSKY: Many of the critics of Western spirituality do tend to throw out the baby with the bath water. They are far too selective in their description of the vices of the West, just as they are far too selective and one-sided in their description of the virtues of the East. That is why, at the risk of being a bore, I always come back to the notion of the "idiom of rejection." Many critics of the West do not even bother to give a fair and balanced history of Western thought. They select the most one-sided expressions, overemphasize them, exaggerate them, and then use them as a foil. It is all very nice to speak about the unity of nature, the sense of unity of all beings, but no civilization is as bookish, as dry, as intellectualist as the Chinese. If you look at certain of the Taoist or Buddhist elements in it, then you can emphasize some of its attractive points. If you look at certain elements in the Confucian tradition, well, Confucianism is three times

as rationalist as anything Europe has ever produced.

Another example is the Western enthusiast who returns full of admiration for Japanese gardens. He sees the unity of nature and of man in the way Japanese architects eliminate all demarcation between house and garden. But the fact is that industrial America, even at its worst, has never exploited and polluted nature the way the Japanese have. Whole villages have died or become ill and disabled because of mercury pollution of Japanese rivers and coastal waters. And if in a few years there are no more whales in the seas, it is because the Japanese whaling industry has systematically disregarded all international agreements. Frankly speaking, I am sick and tired of this childishly foolish, and at times even intellectually fraudulent, playing off of the exploitative, objectifying, manipulative, rationalist, Western mentality against the allegedly more intuitive and profound "unity with nature" ascribed to Oriental civilization.

*Q: It seems obvious that no country or culture or civilization is pure.*

WERBLOWSKY: Yes. I say this not in order to accuse the Japanese of ruthlessness, although other Asians themselves make such accusations. I simply give this example of the folly of Western enthusiasts coming back mooning about the "sense of unity of being" in the East and condemning the exploitation of nature in the West. Japan is the source of all Zen wisdom, but it is also the country in which such ecological mayhem, more appalling than anything in the West, is occurring.

*Q: You have written that there has been a decline in the vitality of Buddhism in Japan. Why is that?*

WERBLOWSKY: Some Japanese Buddhists asserted that the degeneration of Buddhism dates from Japan's modernization and the changes that were introduced in the wake of the Meiji restoration. At that time, Buddhism in Japan lost the special status and protection it had enjoyed for many centuries. In actual fact, Buddhism had degenerated in many ways long before that. To put the blame on

WERBLOWSKY: I think that that is worth trying. However, I am not a spiritual leader, but merely an historian of religion, and I would want to wait and see, and then judge how it works out. Sometimes it works, sometimes it doesn't. I wouldn't want to say one should not try it. Maybe it can work.

*Q: What is your feeling about the relationship in Zen between disciple and Zen master? The Zen master seems to exert a strong, a total influence on his disciple. To the extent that that is true, does this not set up a potentially unhealthy dependency of disciple on master? At what point does the disciple stand on his own feet and free himself from this relationship?*

WERBLOWSKY: The relationship can be unhealthy. I would agree that there is a very strong personal bond. I certainly do not wish to mix psychoanalysis and Zen; that creates awful muddles. Zen has nothing to do with psychoanalysis, and I think the book, *Zen Buddhism and Psychoanalysis*, by Erich Fromm, Richard de Martino, and D. T. Suzuki, is one of the worst books ever produced. But one thing we must all learn from Freud and psychoanalysis, and that is that no real transformation of personality is possible unless there is what in psychoanalytic terminology is called a transference. One of the most decisive elements — and it is the turning point — in any analysis, as Freud well realized, is the transference phenomenon, which, in the modern slang of American youth, means being “hung up” on your psychoanalyst. The big problem in the analytical process is how to dissolve the transference so that the patient can stand on his own feet. Many people never do get rid of their transference. I think there is a similar problem in religious life, when you develop a dependence on your master. Thousands and thousands of people in the West, mostly youngsters, make a fetish of their absolute dependence on the guru. And it does not matter whether the guru is a wise old man or a seventeen-year-old youngster.

There certainly is a kind of dependence on the Zen master. You are free to choose your master. You may actually try out several monasteries

until you find someone, and you say, “Hah! Here, I've hit it off. This is the man whom I accept as my master.” It's still up to the master to accept you as his disciple. So there is undoubtedly a very strong element of dependence. But the thing about the really great Zen master is that he plays his role responsibly, he does not abuse his authority, he tries to discern at what point the dependence should be reduced and when the bond of dependence should be severed. That is a real problem. The ultimate test of a great Zen master is whether he knows how to handle it.

*Q: Is there a tradition of rules and regulations handed down, or exchanged between Zen masters in this matter? Is it recognized as a problem?*

WERBLOWSKY: It is recognized as a problem, but in a very different way than it would be in the West. Zen Buddhism is highly stylized and hierarchically organized. It has none of that semi-anarchic freedom which Zen Westerners believe it has. There is, for instance, the question of ordination, or the proper “apostolic succession” (if I may use a Christian term), in which the master not only accepts a pupil, he also recognizes that pupil's degree of illumination, and at the appropriate time sets him free, perhaps even appointing him to be his successor.

Because Zen is Far Eastern, a certain amount of dependence always remains. This is not subservience or pathological dependence. Zen is highly influenced, almost impregnated, by Confucian traditions, so the notion of filial piety to one's master and to one's parents is strong. The question is, where does dependence begin to paralyze the integrity of one's personality? As I say, here is the test of the really great Zen master, and I think only very few are really great in that respect.

*Q: Can you say something about Zen monastic discipline?*

WERBLOWSKY: Let me skip the early rising at three-thirty or four o'clock in the morning, and say something about the daily beatings in a Zen monastery, especially during periods of intense exercises. When I emerged from my

first period of so-called spiritual exercises — an eight-day *sesshin* — my back was black and blue and green. I valued that. I, for one, would refuse to attend a session in a “modernized” Zen monastery where I would not get my beating. That is not because I am in any way masochistic. The beating is a valuable and useful part of the exercise.

*Q: Who administers the beating?*

WERBLOWSKY: A supervising senior monk, appointed by the superiors, marches up and down — I would almost say patrols — in the meditation hall. Whenever he considers it appropriate, he administers a beating with his stick. It is a highly ritualized affair. I used to refer to the head monk in our meditation hall who administered the beating as our drill sergeant.

*Q: Are the beatings ever just light, symbolic taps on the back?*

WERBLOWSKY: No, they are always sound trouncings.

*Q: Why were the beatings administered?*

WERBLOWSKY: Their purpose is to help you get into or remain in a state of maximum mental alertness and wakefulness. I believe they also have an important physiological function, which is why most serious Zen practitioners want them. During periods of prolonged and intense meditation and spiritual training — especially during the week-long exercises taking place several times a year — you sit for many hours in the lotus position. The lotus position is not, by any standards, a comfortable position. Sometimes you must sit that way seventeen or eighteen hours a day for a whole week. It is very difficult, mentally as well as physically, to sustain that. I and many of my fellow novices felt that a good beating kept our blood circulating. It enabled one to go on with it.

*Q: Is there a resemblance to the beatings and flagellation of the Penitentes in New Mexico?*

WERBLOWSKY: No. I would very



strongly insist that it is not flagellation; it is not masochistic. It is simply one additional method for keeping your physical and mental alertness when, otherwise, you might just doze off or perchance "snap." The beautiful part of it is that it is not just a matter of a superior administering a beating to an inferior. It is not just a sergeant-major thrashing or knocking about a private. It is a highly ritualized affair. Before you receive the beating, the head monk taps you lightly on the shoulder, so as to prevent a sudden shock. He waits until you raise your hands in the attitude of reverence, because you are to focus your mind on the Buddha. Next he bows to you, which is a profound way of showing that the relations between him and you are not simply those between authority and subject. He then administers the beating. After it is over, you bow to him and he bows back. This ritualized context in which the beating takes place gives it a unique quality.

*Q: In Christian monasteries novices have to undergo other kinds of disciplines — silence and fasting.*

WERBLOWSKY: Silence is essential in a Zen monastery, and discipline is essential in any spiritual training. You must subdue your body, but you must also subdue your spirit, your mind, your imagination, and your ideas. There is what I would almost call an artistic equivalent in religion, the need to impose some kind of form on an inchoate matter. It is present in all religions. Without prior discipline, there can be no creative spontaneity.

*Q: Is the solving of a certain number of koans, or riddles, a kind of standard, whereby the Zen master can finally say, "You are now able to go forth, you are no longer a disciple," and dissolve the relationship?*

WERBLOWSKY: That depends on the various Zen schools. Some, mainly in the Rinzai tradition, do emphasize the *koan*. My original training was in a Soto monastery, where they do not have *koans*, or where at least a *koan* was considered of secondary importance. Later I changed to a master whom I would describe as semi-

Rinzai, and there the *koan* played a greater role.

*Q: The ability to see the point of a koan is not the only criterion of one's Zen mastery.*

WERBLOWSKY: No, no. There may be ever so many other things, including some you yourself do not realize. The master-disciple relationship is highly intuitive. Very often, instruction is given without words, simply by a gesture, or by doing something.

*Q: How often does one see one's Zen master?*

WERBLOWSKY: That depends on many factors, the size of the monastery, for example. Some monasteries are huge establishments, almost factories. Some are very small, in which the abbot and the master might be the same person. Some monasteries have several Zen masters, but the abbot is a kind of superior administrator whom you see in his own quarters only very rarely. In the smaller monasteries, you will see the master and the abbot three times a day, at mealtimes, because you have your meals together in the same refectory. Sometimes days will pass without any conversation passing between you. Then, there are special weeks of spiritual exercises when you are called to the master once a day, for *dokusan*, which means "going it alone" — a kind of private interview. At those times you would have a conversation which may last from three minutes to half an hour, depending on his mood or on his reaction to your spiritual state.

*Q: You have written that the West tends to swallow Zen folklore uncritically. Among the things you mentioned as part of the reality of Buddhist life in Japan is that there are more temples in Japan than there are monks, and that often these temples are handed down from father to son, so that they have become a kind of sinecure; perhaps they are even the chief reason why some young men decide to become monks. When I read that, it reminded me of some of the corruption that occurred in the medieval period — in England, for example, in connection with the mon-*

*asteries and the wealth and privileges that began to accrue to the monastic life. The more one reads these things, the more one is impressed by the similarity as well as the differences between religions.*

WERBLOWSKY: Although you are not a professional comparative religionist, that is a sound remark. Some people assert that all religions are basically one, that there is a fundamental unity of all religions, and that only because of historical, cultural, climatic, and other reasons, religions express themselves in different symbols and in different kinds of social institutions and liturgical patterns. An eminent British psychologist, Robert Thouless, who wrote a psychology of religion, made the opposite point which is of the greatest importance and is similar to what you have just suggested. Thouless said that all religions are probably different in their origin, in their spiritual thrust, and in their intention, but that the fascinating phenomenon is how, as they develop, they all become alike. It is not that they are originally similar and then spread out in different directions, but that they are basically different at the start and ultimately all develop in the same way.

*Q: Why?*

WERBLOWSKY: Because human nature has the same wishes, the same fears, the same anxieties, the same hopes, the same weaknesses; so religions do tend to develop in the same direction. But, as I said earlier, if you are a foreigner and you are enamored of something, then you just fail to see that truth. You engage, instead, in selective perception.

May I tell you a little anecdote to illustrate what I said before, and because it partly answers your question about dependence on a master and the problem of transference? It also illustrates how a great deal of teaching can be transmitted without any words being spoken. Certainly for a Westerner who is used to professorial lectures in a classroom, the "transmission without words" makes a particularly strong impact. I had finished a period of training at the monastery to which I belonged, and I went up to the master and asked him for a farewell

present. I wanted to take home with me that stick, the *kyosaku*, with which we got our beatings. The master said, "I can't give it to you, but Hakuin will give it to you." Hakuin was one of the great eighteenth-century Zen masters, one of the greatest in Japanese history. He is well-known also to non-Zenists, because he was one of the great painters and Haiku poets of his day. Genuine Hakuin paintings are very rare museum pieces and fetch enormous prices nowadays. The monastery I was at was founded by Hakuin, and hence the master, with whom I was connected, is in the direct line of apostolic succession of Hakuin himself.

That night, the master put the *kyosaku* on the altar dedicated to Hakuin. The next morning, he proceeded very solemnly to the altar, took the stick and gave it to me, saying, "Hakuin gives this to you." He was, as it were, removing himself from that line of apostolic succession and referring back to the great master. It was an act of symbolic self-effacement. Then he called me into his room and ordered me to lie down, whereupon he administered a beating, not a very serious but rather a symbolic one. Then I had the biggest surprise of my life. The master knelt down and said, "Now you give me a beating."

The whole point of this incident is that one must not fall into the illusion that there is an eternal and authoritarian master-disciple relationship. I may be your master, and you may be my disciple now, but, more profoundly, we are both simply two human beings searching for self-realization, which, in Zen language, is called Buddha-hood. As a consequence there is no distinction between us. But instead of writing a book about it, or lecturing me about it, the master simply knelt down and said, "Now you beat me." That was all, but it said more than a whole volume on Zen.

*Q: A friend of mine who spent some time in Thailand years ago was struck by the sight of elderly people who spent much of their time in their last years close to the Buddhist temples in prayer and contemplation. They seemed to him to be deeply content. Old age, he said, seemed to be a period that was eagerly anticipated in the Buddhist culture of Thailand because*

*it meant more opportunity to meditate and pray and simply think about the meaning of life. He contrasted this with the dread and the anxiety with which so many in America approach their old age which too often is an age of loneliness, poverty, and meaninglessness because the elderly in a highly competitive, materialistic society are looked upon as liabilities rather than assets. How pervasive is Buddhism in the Eastern countries? Does it really penetrate all of their social life, from cradle to grave? Or was my friend seeing only what he wished to see?*

WERBLOWSKY: It depends on where one is. It depends, for example, on whether one is in a village or a city. There are countries, societies, civilizations, where religion is indeed pervasive. India is one such. That does not make India necessarily a better civilization. The callousness one finds in India toward human suffering — the starvation, the poverty, the caste system — is appalling. But you get the feeling that religion in India — modern secularism notwithstanding — is an all-pervading factor. In Japan, on the other hand, it is not pervasive at all. Japan appears in some ways to be a nonreligious country, in spite of its many temples and its rich folklore. In Thailand one will find a very great deal of popular piety.

And we must not forget that for two thousand years or more the Buddhist countries, as well as Hindu India, have been conditioned to the worldview that the most important and valuable persons in society are those who do not contribute anything in direct economic terms. This is unlike the medieval Christian monastic ideal, as embodied by, e.g., the Benedictine and Cistercian monks. Their motto was to pray and to work. They were good agriculturalists, cultivating fields and clearing forests. They made a large part of Europe habitable and civilized. Or think of the many teaching and nursing orders. Even the Franciscan mendicants, who originally were meant to wander about to preach and beg, would occasionally turn to cultivation and labor, as graphically illustrated by the California missions.

In contrast, a monk in the Buddhist tradition is not allowed to work at all, let alone engage in agriculture. He

must meditate and he must beg, and the very fact that he accepts gifts from the layman is the greatest favor he can bestow on the latter, because the layman thereby accumulates merit. So there are societies which do not have the notion that those of its members — they might be monks, or the aged — who are no longer "productive" can be thrown, either socially or psychologically, onto the scrap heap.

Also the Hindu tradition, at least in theory, is based on the idea that a man must fulfill his duties as a householder and head of a family until a certain age, when he hands all of his possessions over to his son, while he himself retires or goes off to the forest as a recluse, a hermit, and the family provides for him. There is in these societies, then, a positive appreciation of the personal and spiritual values which do not directly contribute to the "gross national product."

*Q: How did you happen to meet Thomas Merton?*

WERBLOWSKY: That is a curious story. I had had a very close relationship with the psychologist C. G. Jung when I was very young, and I remember Jung once saying to me, "I am not superstitious, but I do take hints." I happened to be on the East Coast, making travel plans in connection with a lecture I was to give in Tennessee. Well, when a clerk at the travel agency said to me, "You've got to change planes just once, in Louisville," I suddenly had this hallucinatory experience of hearing Jung's voice next to me, saying, "I'm not superstitious, but I do take hints." And I said to myself, "Damn it, if that's not a hint, what is? I am going to take it!" You see, Tom's monastery, Gethsemane, is near Louisville, Kentucky, and, although a friend had urged me repeatedly to visit him, I had always refused, until that "hint" from a travel clerk.

So I wrote to Merton. He had known about some of my writings. He had become interested in Zen from his reading, and by that time I had some practical experience in Zen. Tom's little hut in Gethsemane was full of Zen paintings and things. There was a time when I hoped to arrange for him to visit Japan, but he began to

live for quite a period as a hermit, on the monastery grounds but not in the monastery. Until then he had been living what was for a Trappist an almost scandalously extroverted life, and he evidently needed a period of seclusion and introversion. He would come into the monastery only for concelebrated Mass on Sundays.

Tom Merton was very much aware of certain limitations which his own tradition had developed. The best spiritual traditions petrify. Everything has only one brief moment of genuine vitality, after which it grows a shell and petrifies. Then one lives not out of the substance of the tradition but out of the notion of tradition. Tradition can become a fetish. Tom felt this very strongly. I think that much of his thinking was very muddled; he was still trying to sort out his ideas. His encounter with the East, which had just begun on that fateful trip to the Orient in 1968, could have been a fruitful beginning, one that would lead to a further clarification of his thoughts. His death was a tragedy. I think his friends made a big mistake publishing his diary.

*Q: The Asian Journal ?*

WERBLOWSKY: Yes.

*Q: These were only notes to himself, so to speak.*

WERBLOWSKY: Yes, notes to himself; and I think one does a person a great disservice if, by a mistaken kind of piety, one publishes every single word that one has written.

*Q: Could the Asian Journal have some value, even as notes, of somebody struggling, as Merton struggled, to try and make sense out of the East and the West and the possible relationship between the two?*

WERBLOWSKY: Obviously at some future date, a biographer or a Ph.D. student researching the life of Tom Merton will want to see everything he has ever written. On the other hand, so many of the things jotted down in this *Journal* are so trivial that it is really a disservice to Tom to publish them. If he had edited the *Journal* himself, he would have deleted a great

deal of it. I am just sorry that that book was published.

But Merton's was a great mind. Part of the moving quality of Tom's life is that he was a true contemplative and yet also sensitive to the great moral and social issues of our time. Many of these issues erupted at a crucial period of his life: there was the Vietnam war, and Merton's relationship with the Berrigan brothers. On the other hand, Tom had a firm conviction that the monastic vocation really meant renouncing the world, not being part of the world. Merton was caught in this dilemma. He saw his social responsibility as part of his Christian responsibility, but in a monastic and contemplative setting.

I disagree with those who say that, sooner or later, Tom Merton would have broken with the Church, or at least with his religious order. There have been very few people, in my experience, who were so profoundly convinced of the meaningfulness of the monastic vocation, of what it means to be a monk, and what it means to be torn by this tension than Merton. One of the most beautiful essays that Tom ever wrote — this was still at the time of the agonizing Vietnam war — was his *Conjectures of a Guilty Bystander*. He knew that as a monk he could not but be a bystander. But instead of praising his estate as a monk as the highest form of Christian life and existence, he felt that thereby he incurred guilt. He felt that somehow he had to maneuver between these two demands.

*Q: Some Buddhist monks in Vietnam play active social and political roles. Do they experience the same tension?*

WERBLOWSKY: The better ones do so very much. The Buddhist renounces the world, drops out of the world completely. Still, many of them, especially in Vietnam, presented the world with a contemporary version of the phenomenon of the "political monk." I have a friend in Saigon who once told me that he, as a monk, felt that situations might arise in which a monk was in duty bound to take part in political activity. But, he added, in that case the monk would have to disrobe first, that is, he would have to leave the monastic order and become a layman.

*Q: Was the protest of the Vietnamese monks against Saigon a reflection of their Buddhism or their nationalism? Or perhaps both?*

WERBLOWSKY: I think it was a reflection principally of their nationalism. Political monks are a well-known phenomenon in the Buddhist world, though the history of this phenomenon varies from one country to another. Burma is different from Ceylon, and both are different from Vietnam and its political monks. But in all cases there is a strong element of nationalism, one that is fed by a background situation in which the nationalist protest is focused on the "alien" non-Buddhist elements. Thus, national protest in Ceylon or Burma was triggered off by the presence of the British Empire; and if the British Empire is identified with Christianity, then, obviously, Buddhist and nationalist elements merge in the protest. In Indochina, the Catholic Vietnamese were originally the pet children of the French colonialists. That led to a certain polarization, and so, again Buddhism and nationalism merged into a special type of protest configuration. The Buddhist protest in Vietnam is essentially a nationalist phenomenon, of which Buddhism is part. In the same way in many Middle Eastern African countries, anti-Americanism is not a typically Muslim phenomenon. It is a Third World phenomenon against the dominant West, but one that happens to articulate itself very effectively in a Muslim idiom because Islam is the cultural background.

*Q: What is the relationship between Buddhists and Catholics in Vietnam? How do they get along?*

WERBLOWSKY: Very badly. There is still an enormous amount of mutual distrust. I don't know how long it will take to get over that. Among the more progressive people — certainly in the antiwar circles — there is the beginning of a genuine collaboration. Some Buddhist monks and some progressive Catholic priests are now engaged in a very impressive way as bridge-builders between the two religious groups. But distrust is still the major characteristic of the relationship between the two groups. ☛

WILLIAM E. COLBY

# THE C.I.A.'S COVERT ACTIONS

*[From a conference sponsored by the Center for National Security Studies,  
a Fund for Peace organization]*

If I said I am happy to be here, my statement might be used to challenge the credibility of the intelligence community. But I am happy to serve under a Constitution which, in my view, brings me here. While I might have constructed the program of this conference somewhat differently, it reflects the workings of our free society. It is thus incumbent upon our government officials to explain to the public the functions and activities of their particular organizations, and I include in this, as you can see by my presence here, the Central Intelligence Agency and the intelligence community.

Our military forces must be responsive to our public, but our public does not demand that our war plans be published. Our judicial system must meet the public's standards of justice, but our judicial conferences and grand jury proceedings are not conducted in public. It is even necessary for the Congress to conduct some of its business in executive session while remaining accountable to the voters for the legislation it passes. Similarly, I believe it is feasible to explain to the American people the functions and activities of the C.I.A. and the intelligence community while at the same time maintaining the necessary secrecy of the sources and methods of our intelligence, which would dry up if publicized.

In part, I can respond to legitimate public inquiry through general discussions of our activities, omitting the critical names and details. In other respects, I believe I can respond to the public's need for assurance by reporting fully to congressional committees or other bodies appointed by the public's representatives to receive and retain this sensitive information and to make value judgments about our functions and activities. Another test of our effectiveness lies in the opinions of those in the Executive and the legislature

who are provided the intelligence results of our operational and analytical efforts, but not how these were obtained and produced. There is a final control, of course, in the fact that some of our activities, if badly handled, come to public attention in a somewhat clamorous way.

There have been some "bad secrets" concerning intelligence; their exposure by our academic, journalistic, and political critics certainly is an essential part of the working of our Constitution. There have been some "non-secrets" which did not need to be secret; I have undertaken a program of bringing these into the open. But I think that responsible Americans realize that our country must protect some "good secrets." It is for this reason that I am proposing legislation which will impose penalties on those who take upon themselves the choice of which secrets to reveal, rather than relying on the established declassification procedures of our government. I might clarify that my proposal would not apply to the news media or any other persons than those who consciously assume the obligation to respect the secrecy to which they are admitted as government employees or similar, and that the reasonableness of the classification would be subject to judicial review.

If our laws provide for criminal penalties for the unauthorized disclosure of certain census information, income tax information, Selective Service information, and cotton and other agricultural statistics, I think it reasonable that there should also be penalties for the unauthorized disclosure of foreign intelligence sources and methods upon which the safety of the nation could well depend.

The title of this conference is "The C.I.A. and Covert Actions." In my letter accepting an invitation to appear here, I commented that I was somewhat

## ONE EMBATTLED INTELLIGENCE AGENCY

The Central Intelligence Agency and the National Security Council were created by Congress in 1947. The C.I.A.'s mission: to gather and evaluate intelligence of the activities of foreign governments and to make this intelligence available to the appropriate government agencies concerned with national security. The law does not direct the C.I.A. to engage in covert operations (sabotage, assassination, bribery, paramilitary invasions, rigging of elections) against other nations or against groups within those nations. But the law does say the C.I.A. will perform such "other functions" as the National Security Council may direct. In fact, since 1947 the C.I.A. has engaged in many

"other functions," including covert operations in Burma, Laos, Iran, Indonesia, China, the Philippines, Guatemala, Ecuador, the Congo, Albania, Tibet, Cuba, Vietnam, Bolivia, and Chile.

In the mid-nineteen-sixties, the C.I.A. was also discovered to have operated under cover of American universities, labor unions, book publishers, student organizations, and cultural and religious organizations.

As the Watergate scandal unfolded in 1973, and as details of the break-in at the office of Daniel Ellsberg's psychiatrist came to light, the extent to which C.I.A. officials had cooperated with some of the malefactors also came to light.

Then, late last year, Seymour Hersh, in a series of articles in *The New York Times*, reported that the C.I.A. had engaged in surveillance of American citizens. Under public and congressional pressure, present

and former officials of the C.I.A. acknowledged that the agency had spied on American political dissenters, planted informers inside American protest organizations, opened the mail of American citizens, and assembled secret files on more than ten thousand citizens.

The C.I.A. is thought to have sixteen thousand employees and a budget of three-quarters of a billion dollars a year. By law, the agency is authorized to conceal its manpower, budget, and all accounting procedures relating to the expenditure of its funds.

A five-man committee, the Forty Committee, is responsible for approving the C.I.A.'s covert operations. The group includes Secretary of State Henry Kissinger; Undersecretary of State for Political Affairs Joseph J. Sisco; the Deputy Secretary of Defense William P. Clements, Jr.; General George S. Brown;

surprised that there was no attempt in the agenda to examine the need for the contribution that objective and independent intelligence can make to policy decisions. In fact, however, I note that there has been considerable discussion of our intelligence activities, such as the U-2, in addition to our covert-action role.

In this regard, I would like to clarify that the predominant focus of the C.I.A. and the intelligence community today is clearly on our information and analytical responsibilities. In this field, we endeavor to serve the executive branch by providing intelligence on the facts of the world about us and our assessments of likely future developments. We also try to serve the Congress and the public by providing the output of the intelligence investment made by the United States, to support them in their role in American decision-making. Thus, the C.I.A. has appeared before eighteen committees on twenty-eight occasions this year (Armed Services, Appropriations, Foreign Affairs, Atomic Energy, and economics), testifying on a variety of subjects. We have cleared for publication some of this testimony on the economics of the Soviet Union and China and on the Soviet presence in the Indian Ocean. We also produce a number of unclassified publications and distribute them through the Library of Congress to over two hundred libraries and institutes around the country, as well as making publicly available our reports of foreign broadcasts

and translated documents. In addition, I have talked with 132 newsmen in the past year; about one hundred have come to the C.I.A. for briefings by our analysts on substantive questions involving foreign countries, thus benefiting from our accumulated information from our most sensitive sources.

It is a strange anomaly that our country makes publicly available vast amounts of material on the United States, whereas the corresponding material about our potential adversaries must be collected by intelligence techniques at a cost of hundreds of millions of dollars. In this situation, if we cannot protect our intelligence sources and methods, I fear we may reach a situation in which our adversaries profit from our openness while we are blinded by their secrecy.

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Herbert Scoville has quite properly indicated the revolution in intelligence which has been achieved through the growth of technology over the past two decades. This intelligence, however, is still limited to what physically exists. It does not give us the intentions, the research ideas, and the decision-making dynamics of the countries which might pose a threat to the United States. In today's accelerating technology, we are condemned always to be well behind if we rely only on what has appeared in the market-

chairman of the Joint Chiefs of Staff; and William E. Colby, director of the C.I.A.

Congressional supervision of the C.I.A. rests with subcommittees made up, for the most part, of senior members of the Armed Services and Appropriations Committees of both the House and Senate.

In practice, the Congress exercises virtually no control over the C.I.A. Increasingly uneasy about the C.I.A.'s covert operations, congressmen have introduced more than 150 resolutions, during the twenty-seven years of the C.I.A.'s existence, in an effort to exercise tighter congressional control. All of the resolutions have been either defeated or tabled.

Last April 22nd, Mr. Colby gave the Intelligence Subcommittee of the House Armed Services Committee, led by Lucien Nedzi of Michigan, some of the details of the C.I.A.'s

activities in Chile prior to the overthrow of the Allende government. When Congressman Michael Harrington of Massachusetts read a transcript of the secret briefing, he wrote confidential letters to the House Foreign Affairs Committee and the Senate Foreign Relations Committee requesting a thorough investigation into the United States intervention in Chilean affairs.

In a news conference last September, President Ford acknowledged that the C.I.A. had engaged in covert operations in Chile. He justified it on the ground that "there was an effort being made by the Allende government to destroy opposition news media, both the writing press as well as the electronic press, and to destroy opposition political parties." According to Mr. Ford, the C.I.A.'s Chilean operations were "in the best interests of the people of Chile."

At about the same time, the Fund for Peace, through its Center for National Security Studies in Washington, sponsored a two-day conference in Washington on "The C.I.A. and Covert Actions." Speakers and panelists included many longtime critics of the C.I.A., but one of the speakers was C.I.A. Director William E. Colby. With the cooperation of the Fund for Peace, we present Mr. Colby's address and an edited sample of the discussion that followed. The Fund for Peace will publish the proceedings as a book later this year. The materials include papers on the constitutional and international-law implications of covert operations; a critique of ultra-secret decision-making on covert operations; the C.I.A.'s operations in the United States; the role of technology in covert operations; and case histories of C.I.A. operations in Laos and elsewhere. —D.MCD.

place instead of what is planned for the future. In addition, in a world which can destroy itself through misunderstanding or miscalculation, it is important that our leaders have a clear perception of the motives, intentions, and strategies of other powers so that they can be deterred, negotiated about, or countered in the interests of peace or, if necessary, the ultimate security of our country. These kinds of insights cannot be obtained only through technical means or analysis. From closed societies they can only be obtained by secret intelligence operations, without which our country must risk subordination to possible adversaries.

To turn to covert action, which is included in those "other functions and duties related to intelligence affecting the national security as the National Security Council may from time to time direct" as stated in the National Security Act, there is debate as to the degree Congress intended the C.I.A. to engage in these actions when passing the legislation in 1947. The O.S.S. [Office of Strategic Services] precedent, the National Security Act's clear authorization of functions "related to intelligence" by reason of secret techniques and frequent use of the same assets, and the periodic briefings given to the Congress over the years through its authorized committees clearly establish the C.I.A.'s authority to perform these functions.

The C.I.A. conducts such activities only when

specifically authorized by the National Security Council. Thus, C.I.A. covert actions reflect national policy. National policy has been in a state of change, and the C.I.A.'s involvement in covert action has correspondingly changed. In the early days of the Cold War, when national policy-makers believed it essential to confront an aggressive Communist subversive effort in many areas of the world and in the international organizational sphere, there was a great deal of this sort of effort. Some was revealed in the 1967 disclosures of our relationships with various American groups which helped their country to present the American position and support America's friends in this arena during the nineteen-fifties and nineteen-sixties. The record is clear that the assistance given to these institutions by the C.I.A. was to enable them to participate in *foreign* activities; there was no attempt to interfere in internal American domestic activities. C.I.A. aid helped such groups as the National Student Association to articulate the views of American students abroad and meet the Communist-subsidized efforts to develop a panoply of international front organizations. I might quote Ms. Gloria Steinem, one of those so assisted, who commented that the C.I.A. "wanted to do what we wanted to do — present a healthy, diverse view of the United States" — "I never felt I was being dictated to at all."

There have also been, and are still, certain situations in the world in which some discreet support can assist America's friends against her adversaries in their contest for control of a foreign nation's political direction. While these instances are few today compared to the nineteen-fifties I believe it only prudent for our nation to be able to act in such situations, and thereby forestall greater difficulties for us in the future.

In other situations, especially after Nikita Khrushchev's enthusiastic espousal of the thesis of "wars of national liberation," the United States believed it essential to provide paramilitary support to certain groups and nations. In 1962, President Kennedy, for national policy reasons, did not want to use the uniformed forces of the United States in Laos, but also did not want to be limited to a mere diplomatic protest against the continued presence of five thousand North Vietnamese troops in Laos in violation of the Geneva Accords, and their expansion of control over communities who wished to resist them.

Thus, the C.I.A. was directed to provide support to those communities, a duty which grew to a major effort, known and approved by the Lao government, but not confronting North Vietnam and its allies with a direct and overt United States challenge. Fred Banfman has told you of some of the terrible human problems involved in any war when it grows to a conventional scale involving artillery, air bombardment, and so forth. What has perhaps not been fully perceived is that the American assistance to this effort involved a small commitment of C.I.A. Americans and a small expenditure over the many years in which this action was undertaken; and that, as a result of the defensive efforts of the forces supported by the C.I.A., the battle lines at the end of the period were essentially unchanged from those at the opening.

As with the Bay of Pigs, when the activity became too large, it no longer remained secret. But I think the C.I.A. people who conducted this effort deserve the praise of our citizens for the effective but modest manner in which President Kennedy's mission was carried out — a mission, by the way, that cost the lives of eight C.I.A. officers there. This activity was reported to and appropriated for on a regular basis by the authorized elements of the Congress — the war was no secret from them.

But it is clear that American policy today is different from when it was confronting worldwide Communist subversion in the nineteen-fifties or Communist insurgency in the nineteen-sixties. Our involvement has been reduced in many areas, in part,

I might add, by the fact that many of the Communist efforts during those years were unsuccessful. The C.I.A.'s covert actions in many of these instances thus assisted in laying the groundwork for the new period of détente which we pursue in our relationships with the Communist world today. As a result, C.I.A. involvement in covert action is very small indeed compared to those earlier periods. I do not say that we do not now conduct such activities; I merely state that they are undertaken only as directed by the National Security Council, they are frankly and regularly reported to the appropriate committees of the Congress, and they require only a small proportion of our effort at this time.

I am not being more precise on these various covert actions. Some you are aware of because of exposure, leak, or failure — such as the Bay of Pigs. Some you are not aware of because they have been effectively handled and have achieved their objectives. I abide by what one President said about the C.I.A., that our successes are unheralded and our failures trumpeted.

It is advocated by some that the United States abandon covert action. This is a legitimate question, and in light of current American policy, as I have indicated, it would not have a major impact on our current activities or the current security of the United States. I believe, however, that a sovereign nation must look ahead to changing circumstances. I can envisage situations in which the United States might well need to conduct covert action in the face of some new threat that developed in the world.

In 1924, we sank the brand-new battleship Washington as a demonstration of our belief in disarmament. At about the same time, we disbanded an intelligence element in the Department of State on the thesis that "gentlemen do not read each other's mail." During the same period, we declined the international burdens of membership in the League of Nations. I believe our post-World War II history, with all its costs, constituted an improvement on our post-World War I policies and did avoid a World War III during these thirty years. I thus think it would be mistaken to deprive our nation of the possibility of some moderate covert-action response to a foreign problem and leave us with nothing between a diplomatic protest and sending the Marines.

Bills in Congress today would amend the National Security Act of 1947 to clarify a requirement that the Congress be kept informed "in such manner as the Congress may prescribe" of any "functions and duties related to intelligence affecting the national



security" carried out by the C.I.A. I fully support this change in the C.I.A.'s basic legislative charter, which would establish in law the practice we follow today.

In announcing this conference, Robert Borosage expressed the concern that untrammelled secret power poses a threat to our liberties and that our program of covert activities abroad must be reexamined before similar techniques are employed to subvert our democracy at home. I have indicated that I do not believe that the C.I.A.'s covert actions abroad constitute untrammelled secret power in view of our responsibilities to the Executive and to the legislature.

With respect to the second part of Mr. Borosage's concern about these techniques being employed in the United States, I again point to a bill being considered in the Congress, which would make it crystal clear that the C.I.A.'s activities lie only in the field

of foreign intelligence, by adding the word "foreign" wherever the word "intelligence" appears in the National Security Act. I fully support this wording; in fact I originally suggested it in my confirmation hearings.

My predecessors and I have admitted that the C.I.A. did exceed its authority in several instances with respect to Watergate. We have taken steps within the agency to insure that such actions do not occur again. The proposed change in our legislative charter would make this a matter of statutory direction. But the fact that a retired C.I.A. employee becomes involved in some illegal activity in the United States should no more eliminate a function essential to our nation than should the fact that a Vietnam veteran commits a crime be used as the basis to deprive the United States Army of its pistols. And the concern of all of us that the C.I.A. not be used against United States citizens should not bar it from lawfully collecting that foreign intelligence available within the United States.

## Discussion:

**COLBY:** With respect to Chile, since my testimony on Chile was given on April 22nd in executive session of the Intelligence Subcommittee of the House Armed Services Committee, I will not discuss the details of our activity in Chile other than to point out that they fell within the general principles I have outlined above.

I repeat what I have previously said: that the C.I.A. had no connection with the military coup in Chile in 1973. We did look forward to a change in government by democratic political forces in the elections of 1976. In reviewing the transcript of my testimony, I find no reference to "prototype" nor to the term "destabilize." The latter, especially, is not a fair description of our national policy, from 1971 on, of encouraging continued existence of democratic forces looking toward future elections.

This unfortunate leak again points to the dilemma of how we are to provide such delicate information to Congress without its exposure and the consequent adverse impact of that exposure on those who put their faith in our secrecy and those who might be contemplating such a relationship with us in the future. This is a matter, of course, for the Congress

to decide. I have every confidence that a fully satisfactory solution will eventuate.

**JAMES ABOUREZK** (*Senator from South Dakota*): You say that covert operations reflect national policy. Now, since all covert operations are done in secret, and, when revealed, are denied by the C.I.A., and since such operations are neither disclosed nor acknowledged to the public, how can they reflect national policy?

**COLBY:** Because authorization is given to us by the established elected authorities of the United States government, the President and the National Security Council, and these operations are reported to the Congress.

**ABOUREZK:** They are not reported to me.

**COLBY:** That may be true. As I have indicated, I believe these matters should be reported to the Congress in the manner that the Congress establishes. That is up to the Congress to determine how it shall be done. You are correct when you say that these covert actions are, by definition, secret. But, they are not denied. Some years ago, the term "plausible denial" was used. I have proscribed the use of that term. I do not believe that we can tell the American

people an untruth. I think we can give the American people true statements, and keep secret other matters which have to be secret. But I do not believe we can tell them an untruth.

**ROBERT BOROSAGE** (*Director, Center for National Security Studies*): You say that it is a strange anomaly that the United States has so much information that it makes public, whereas our potential adversaries do not. It seems to me that the reason for that strange anomaly is something called democracy. This is supposed to be a society in which the legislature and the people decide what are the policies that we undertake. The question of what is national policy exemplifies the point. National policy on acts of war, according to the Constitution, is supposed to be decided at least in conjunction with the legislature. The easy assumption that national policy is an executive matter is exactly what has taken us into all of the wars we have fought and all the agony we have had over the last decade.

**COLBY**: Like every other government employec, I took an oath to support and defend the Constitution of the United States. My concept of the Constitution is one expressed through the duly established legislative, judicial, and executive bodies represented by it. National policy is not an executive matter only. It requires an annual appropriation by the Congress. It is subject to judicial review of the constitutionality of both legislative and executive actions.

**HENRY HOWE RANSOM** (*author of The Intelligence Establishment*): Will you comment further on this question of the statutory authority of the Central Intelligence Agency to engage in covert operations? I have read that statute over and over and over, and it does say what you said it says with regard to "other duties and functions related to intelligence affecting the national security." But you find a lot more flexibility in that statute — and particularly in the word "intelligence" — than I, as a user of the English language, find in it.

**COLBY**: Over the years, history has given the deliberately general phrase in that statute a great deal of content which has been ratified by the Congress and by the Executive. It has come to, shall we say, not a little public attention, but no change has been made in it.

**ABOUREZK**: It seems that C.I.A. covert activities are

never discussed in advance with anyone that I know of. If they are discussed with Lucien Nedzi or Stuart Symington, I am not aware of it. What happened in Chile indicates that that is the case. You say that you are prepared to discuss the Chilean operation before any appropriate committee; but the Chilean operation is over with. We are always talking about what the C.I.A. has done two, three, four, or five years in the past. Might it not be a good idea to discuss what you are doing now, at this time, with even just the appropriate committees? I would like to see you go further than that and describe the C.I.A.'s covert activities with respect to national policy. In that case, shouldn't the nation be brought in, if not on specific matters, at least on the general principle of whether the electorate approves of, say assassinations? Does the nation approve of C.I.A.-sponsored government coups, and many other things that I and a lot of Americans disapprove of? You do not want to talk about the C.I.A.'s specific activities, but the C.I.A. will not talk about even general principles. Would that not be an appropriate matter for public debate — whether a specific Chilean-type or Cuban-type operation reflects national policy?

**COLBY**: I think that my presence here demonstrates that I am prepared to talk about covert actions, and I have talked about some of them. As for discussing future events, many of them cannot be predicted, but some of our covert activities have been going on for a number of years. During those years there have been periodic congressional appropriations, some of which have been used for some of these [covert] operations. When those operations get significant enough, they must be covered in the appropriations process. I did state to Mr. Nedzi in an open hearing a few weeks ago that there are no secrets from his particular intelligence subcommittee or from the corresponding subcommittee of the House Appropriations Committee. None. I also told him that, beyond a responsibility to respond to his questions, I have a positive responsibility to bring to his attention things that he might be interested in. I have undertaken to bring to the various legislative committees information about our current activities so that they will be informed of what we are doing.

**ABOUREZK**: Did the chairman of the oversight committee know in advance of your Chilean operation?

**COLBY**: Various of our individual actions in Chile over the years were reported — at that time and in

some cases before the funds were expended — to the appropriate chairmen of the committees involved. I can't say that every dollar the C.I.A. spent in Chile was individually approved by a committee chairman. But I can say that the major efforts were known to the senior officials of the Congress.

**ABOUREZK:** Regarding recent disclosures of the C.I.A.'s Chilean operation, was the knowledge of that action provided in advance to the supervising committees of the Congress?

**COLBY:** At various times during the period of 1964 to 1973, the major steps in Chile were brought to the attention of the chairmen or appropriate members of these committees. Now, I cannot say that every individual instance was brought to them, but there were a series of discussions between the C.I.A. and senior members of Congress which brought them up to date with the fact that this occurred and was occurring.

**ABOUREZK:** A story by Laurence Stern in the *Washington Post* states that \$350,000 was authorized to the C.I.A., to bribe the Chilean congress which at that time was faced with deciding a run-off election between Allende and the opposition candidate. Were our supervising congressional committees aware of that?

**COLBY:** That falls within the category of the details that I am not going to talk about. I do not want to talk about the details of our operation in Chile outside of the duly constituted committees of the Congress.

**ABOUREZK:** Is there anything that the C.I.A. has done overseas that you would not do in the United States?

**COLBY:** Of course. We are engaged every day overseas trying to learn through secret, clandestine operations matters which are kept secret. In the closed societies and countries that we work in and in some of the other countries that we share this world with, we do a lot of things which, according to our standards at home, are illegal. This is a natural aspect of the fact that we live in a world of sovereign entities, each of which must protect its own security.

**ABOUREZK:** What activities in the covert operation you engage in overseas would you approve of in the United States?

**COLBY:** The C.I.A. must do those things that are lawful in the United States. I did not say that we had any authority to commit crimes in the United States. I deny that we have any such authority, and we have given very strict directions to our people in that respect.

**ABOUREZK:** But you do undertake activities overseas that would be crimes in this country?

**COLBY:** Of course. Espionage is a crime in this country.

**ABOUREZK:** Other than espionage?

**COLBY:** Of course.

**MORTON HALPERIN** (*Former member, Henry Kissinger's National Security staff*): I was encouraged by your statement that you now think it is a legitimate question whether, given our current perception of our interests, we should engage in any covert operations and by your additional statement that you do not think abolishing covert operations would have a major impact on the security of the United States. Can we assume that that statement was made with, among other things, the current situation in Greece in mind? If, as appears to be the case, Greece may well be getting a government which decides to withdraw from NATO and eliminate American bases, would your statement still hold? Do you believe that American security interests require or justify American covert intervention to prevent a Greek withdrawal from NATO? Has the C.I.A. proposed to the Forty Committee, or do you expect that it would propose to the Forty Committee, operations designed to prevent a Greek government from coming to power which would seek to withdraw from NATO and close American bases?

**COLBY:** As I said in my statement, I do not think that the elimination of covert actions would have a major effect on our current activities, because that is such a small portion of our total activity. I do not think that would have an immediate adverse effect on the security of the United States. That is a different question than whether any particular situation might be in the net interest of the United States. I do not think it is very useful for me to discuss in this forum whether any proposal should be made or should not be made about a particular covert action. I think that that falls exactly within the category of

those things that I believe, if we are to conduct covert actions, should be discussed only within those very restricted circles in the executive branch and reported to those very restricted circles in the legislature which can enable them to be done and still be kept secret.

**HALPERIN:** Did I understand you to say that, while there might be a net advantage for the intervention in Greece — and you are not prepared to discuss that — nevertheless there would be no major impact on American security if we did not conduct covert operations throughout the world, including Greece?

**COLBY:** The current status of the world is such that it does not look as though we are on the brink of any serious damage to our country at the moment. The Capitol will still stand whether or not any particular covert action takes place at this time.

**MARCUS RASKIN** (*Co-director, Institute for Policy Studies*): In the last generation, as you know, the Rockefeller family has been very much involved in different forms of intelligence activities of the United State. Will the C.I.A., under your direction, continue to use various Rockefeller-owned corporations abroad in any way? Will the Central Intelligence Agency continue to use various corporations, including Rockefeller corporations, as covers around the world?

**COLBY:** I do not believe that that is a useful subject to discuss. I get back to my responsibility not to talk about the operational details of my agency.

**RASKIN:** Did the Central Intelligence Agency use I.T.T. as a cover in Chile?

**COLBY:** Again, I do not propose to discuss the details of our operations. I do not want to get into a situation where I say, "no, no, no, no" to a series of questions, and then have to say "no comment," because the answer is pretty obvious at that point. I think it is much more useful if I just say "no" to the whole run of such questions.

**HERBERT SCOVILLE** (*Former deputy director of science and technology, C.I.A.*): The C.I.A. has received a great deal of criticism because of its covert operations. You have said that stopping these activities would have no major effect on national security or on the operations of the agency as a whole at this time. In

view of that, and also since one can make a case that these covert operations are interfering with the C.I.A.'s legitimate intelligence collection and analysis, wouldn't it be a good idea for the agency now, once and for all, to divorce itself from these covert operations? If covert operations must be continued — and I think there is a real question whether they should — let us put them in some other place, but let us get on and have the C.I.A. do the job it really ought to be doing and can do in collecting and analyzing intelligence.

**COLBY:** In view of the world situation and our national policy, we are not spending much of our effort on covert operations. We are keeping our musket and powder dry; this does not divert us from our major functions today. As to the future, I think that there can be a legitimate need for the covert operation. I do not have any bureaucratic feeling about whether or not such operations should be in the C.I.A. I do know that various considerations have been given over the years as to whether the covert operations could be run somewhere else, and it has been generally believed that it is impractical to do them anywhere else.

**NEIL SHEEHAN** (*New York Times correspondent, on leave; author of a forthcoming book on the war in Vietnam*): Would it hamper the C.I.A.'s overseas activities if agents were made subject to federal laws of this country for their activities overseas as, for example, American military officers are subject to the code of military justice no matter where they serve?

**COLBY:** You raise a complicated legal question. The fact is that if the C.I.A. officer overseas commits a crime against the United States government, he will probably be punished in some fashion or other. I think he bears a certain legal responsibility to United States laws, even while he is serving overseas. This is a murky legal problem, but I think that an American C.I.A. agent is not totally free of United States law once he leaves these shores.

**JOHN D. MARKS** (*Former assistant to the Director of Intelligence and Research of the State Department; co-author of The C.I.A. and the Cult of Intelligence*): I believe you would agree with the definition of covert action as secret intervention into another country's internal affairs. The techniques include blackmail, burglary, subversion, and assassination. With the approval of competent authority in the Forty Committee and the

National Security Council, do you feel those techniques are justified in the name of national security?

**COLBY:** I think the use of an atomic bomb is justified in the interest of national security. Going down from that, there is quite a realm of things one can do in the reasonable defense of the country. The morality of self-defense involves making one's action relate reasonably to the need for some kind of action. An exaggerated action when there is little need for it is immoral and wrong.

**DAVID WISE** (*Co-author of The Invisible Government; author of The Politics of Lying*): In the late nineteen-fifties, President Eisenhower denied that the C.I.A. was engaged in activities against the government of Indonesia. Earlier, during the time of the uprising in Guatemala, Secretary of State John Foster Dulles said that the situation was being cured by the Guatemalans themselves. At the time of the U-2 incident in 1960, we were told by our government that it was an American weather plane that had drifted over the Soviet border. At the time of the Bay of Pigs, U.N. Ambassador Adlai Stevenson had to lie to the whole world by reading a cover story into the record of the United Nations, something which I think he always regretted. More recently, high officials of our government have told us that we did not intervene in Chile. As a citizen, I resent being lied to by my government, and I am sure many other citizens do too. Does this lying not make the cost of the C.I.A.'s covert operations too high? And did I understand you to say that there will be no more lying about C.I.A. operations?

**COLBY:** With reference to what happened in 1950, 1960, and so forth, I have tried to indicate that times have changed. We are aware that they have changed. We are trying to adjust to the new world that we have here. We are trying to respond to the American people and to the American Constitution in the form that is expected of us at this time. I did say that I believe I cannot tell the American people an untruth. On occasion, I may have to keep some matters secret and not mention them. But I believe it is not feasible — and frankly I don't like it either — to tell the American people or their representatives an untruth, either in open or in secret.

**WISE:** Then logically doesn't that mean an end to covert operations? How can you have them if you do not lie about them?

**COLBY:** Because you do not have to talk about them, and you do not have to leak about them.

**RASKIN:** In line with your attempt to readjust C.I.A. policy, are you prepared to have the C.I.A.'s budget for both its intelligence and covert operations stated publicly in the federal budget? Are you prepared to send out other people, representing the agency and its points of view, to debate in town meetings in various parts of the United States on the efficacy of having covert operations, so that you can find out, as Congress should, what the new mood of the American people is? In my view, if you do, you will find that what you have been doing is utterly insulated, that you have been operating within a political and cultural hegemony that has nothing to do with the people's wishes and needs at this time.

**COLBY:** With respect to the budget, the release of a single figure, one year at a time, would not create a serious security problem. But if you continue that over a few years, one could draw trend lines. People would immediately ask, "Why did it go up?" "Why did it go down?" "What is it made up of?" Very quickly one would be getting into the details of it. This matter — the disclosure of a single figure — was debated in the Senate last June, and it was turned down by a vote of fifty-five to thirty-three.

Regarding appearing around the country, I have appeared in a number of places. I have spoken in Los Angeles, Chicago, New York, and other places. C.I.A. officers have appeared in various places; a number of our officers have attended association conferences. The answer is, yes, within the limits of the time available, we are prepared to go out and talk to the American people. That is what I am trying to do right here.

**FRED BRANFMAN** (*Co-director, Indochina Resource Center*): While you were in Vietnam, was it the frequent practice of the South Vietnamese National Police to carry out torture? Were many people shackled in tiger cages on Con Son Island? I understand nobody has a monopoly on morality, but I think we would like to know what your morality is. Are there any things you have done in Vietnam that you would not do elsewhere and would not do here at home, from a moral point of view? I understand the legal problems. What is your morality?

**COLBY:** My morality is to try to help produce a better world and not to insist on a perfect one.

**BRANFMAN:** Was it the practice of the national police to torture?

**COLBY:** It was not the common practice. We had a lot of advisers throughout the police and other structures in Vietnam. There were exceptional cases; they were few, exceptional, and against policy, but they did occur, and I have said that. Were there tiger cages on Con Son Island? The answer is yes. Were there shackles in the tiger cages? Yes. Those tiger cages were built during the time of the French, and they have been used ever since.

**BRANFMAN:** Mr. Colby, you have just violated what you said a little while ago: that you were not going to lie as director of the C.I.A. It was common practice to be tortured in Vietnam, and you know it. You have just lied after saying a moment ago that you would not lie. I think it is disgraceful.

**COLBY:** I respectfully disagree.

**HALPERIN:** Could you explain by what authority and by what criteria you decide what a properly constituted body of the United States Congress is to which you have to answer? The Senate's Watergate Committee was established by an overwhelming vote of the Senate of the United States. It was directed to investigate Watergate and related matters. A member of that committee asked your agency for information, and you have said that you gave him only what you wanted to give him and drew the line at information that you would provide only to duly constituted and authorized committees of the United States Senate. Now, as far as I can tell, the Watergate Committee was authorized to receive that information. As far as I am aware, the Senate of the United States has never voted that the Armed Services Committee or the Appropriations Committee are the only committees which should get information from the C.I.A. What gives you the right to say that one committee is authorized to receive information, but that the Watergate Committee is not so authorized?

**COLBY:** I am merely following the precedent established by the Congress for some twenty-five years.

**HALPERIN:** The Senate Watergate committee was never established before.

**COLBY:** You are correct. There is no specific resolution of either the House or the Senate that sets up

those particular committees; but in the early nineteen-fifties those subcommittees of the Appropriations Committee and the Armed Services Committee of the House and Senate were established as proper oversight and review committees for the C.I.A. The practice grew up, over those twenty-five years, that we in the C.I.A. would speak only to those committees and not to the others. A series of resolutions were presented to the Senate and to the House over the years, recommending a change in that procedure. Each of those suggestions was turned down, so that the standing arrangement then continued.

**HALPERIN:** But that practice concerns what you have to tell the congressional committees generally about your operations. But I do not understand why that practice is not superseded when a special committee, set up by the Senate, requires C.I.A. officers to answer its questions. By your logic, the Federal Bureau of Investigation and every other agency of the government could have said to the Senate Watergate Committee, "We're sorry, we're the F.B.I. and we only answer to our standing committees." The F.B.I. and other groups understood that Watergate was an extraordinary situation for which the Senate had authorized an extraordinary investigation. That seems to me to supersede twenty-five years of C.I.A. practice in talking only with subcommittees of the Armed Services and Appropriations Committees.

**COLBY:** I am prepared to change this process at any time the Senate and the House direct me to do so. I am not giving anything away. I am merely reflecting the Constitution.

**HALPERIN:** But the Senate directed every part of the executive branch to answer the questions of its Watergate Committee. You are saying, no, you want a specific resolution telling you to answer them.

**COLBY:** I am merely saying that I will comply with the way the Senate wants to arrange the oversight of the operational aspects of the intelligence business. There is special legislation which indicates that the intelligence business is a very special business. I am charged by statute with the protection of intelligence sources and methods against unauthorized disclosure. I am prepared to change my procedure at any time the Senate and the House determine to do it. Until that time, I have to follow both the tradition of the House and the Senate and the special directives of the statute itself. 20



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In a universal society, as in a national community, peace must have its code, its law and doctrine. Here I see no substitute for the U.N. Charter. The Charter is more impressive as a document than the United Nations has been as an institution. It is a document that strikes a correct balance between national identity and universal solidarity. The nation state is still the main source of distinctive culture. In some respects all nations are like all others.

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The problem of peace will not be advanced unless it exercises the minds of nations at their highest level of responsibility. This is not the position today. Diplomacy is still conservative in its traditions, methods, and, above all, its range. It is concerned with the crisis of today and the explosions of tomorrow — Vietnam, Cuba, the Congo, Cyprus, the Near East. Diplomacy is local, not universal, in its habit of mind and in its techniques of solution. It is still obsessed by the old myths.

The new reality lies in the existence of problems that cannot be denied, still less solved, except on a global scale. Just as the leaders of communities within our nations assemble to tackle the national problems, so should the leaders of nations come together for the first time in history to review the total human condition. By this I mean a review of problems and actions facing the City of Man during the next quarter of a century.

[At the Center's first Pacem in Terris conference, 1963]