The poem "Populist Manifesto" by Lawrence Ferlinghetti, which opens this section of Explorations, was a totally unexpected windfall. Apparently Ferlinghetti had given the poem, without copyright, to a few of his close friends and favourite publishers trusting that they would know where to place it. Happily for us, we share a friend with Ferlinghetti, and it was our mutual friend, Sasha Hoffman, who gave us the poem for publication in the Journal.

With "Meditations on the Dark Ages, Past and Present" by William Irwin Thompson, we move into heady terrain indeed. Bill Thompson, one of the visionaries of the New Age, is known for his books, "At the Edge of History" and "Travels About Earth", and as the founder of the Lindisfarne Association. Like so many Irishmen, he is a spellbinding talker, but in his case his words are backed by profound knowledge of cultural history and a unique ability to bring together and synthesize apparently disparate ideas and philosophies.

The second article was prompted by a meeting one afternoon with an old friend, Ruth Hubbard, and her co-worker, Nancy Milio. We were so impressed with the potentialities of their ideas for offering genuine alternatives in health care that we asked them to write a short description of them for the Journal. The concept of a demystified, decentralized preventive approach to medicine is surely as critical as that of appropriate technology and, so far, has received far less attention. We hope that their project will be a giant first step toward change in both the practice of medicine and the maintenance of health.

My own article "Women and Ecology" was written for the 1974 summer session of the Social Ecology course given by Murray Bookchin at Goddard College in Vermont. Quite a lot has happened in the year since it was written. It is too soon to know what, if any, the far-reaching consequences of the United Nations Women's Year will be. The authoritarianism of Indira Gandhi gives little encouragement to the idea that the emergence of the feminine voice will result in fundamental change but what I think we are beginning to see is a groundswell of hitherto unknown participation by women in human affairs. It may be a generation or so before we shall be able to assess the results.

Explorations









on the Dark Ages, Past and Present

All forms hold energy against the flow of time. Spread the energy of a sun equitably throughout space, and you will subtract a star from the heavens. Gather up the galactic dust of space in a spiral, and you can compress the dust into a sun. Expansion and contraction, expression and compression: so the universe goes. Once it was a single atom that began to expand in an explosion; and now it will continue to expand until it reaches the ultimate limit of entropy. With the energies of the aboriginal cosmic atom spread equitably throughout space, it will all be over in the heat-death of the universe. It is only a matter of time, or, rather, the matter of time. From hot to cold, from order to disorder, from creation to entropy: over it all the Second Law keeps watch, and black holes compose the light of gravity-collapsing stars.

Modern optimists like Buckminster Fuller like to speak of "synergy," as if there were some magic form that could hold out against the laws of thermodynamics. Surrounded by the signs of an impending tragedy, the collapse of his whole industrial civilization, the liberal optimist refuses to believe in tragedies anymore: the past was tragic because they did not have computers in those days. Liberals like Zbigniew Brzezinski and Herman Kahn believe we can eliminate the tragic flaw in man; following Brzezinski, we can replace the chaos of politics with the systems of management; following Kahn, we can hook up the brain to computers to create an electronic superman. 1 In the science-fiction vision of Arthur C. Clarke², the ultimate society of the future will be programed by a giant computer, and politics, economics, art, and entertainment will be taken care of in a domed city whose magic circle keeps out chaos and

Although that miracle seems far off, Buckminster Fuller is still reaching out for it and has already drawn a sketch of a dome over Manhattan. For men like Fuller, Brzezinski, and Kahn, tragedy is inconceivable. Their faith in progress is so unthinking that they cannot help but believe that some technological miracle will deliver us at the last dramatic moment. Though we have not been reared on myth, we have all been raised on movies and believe that just as all seems lost and the savages are about to burn the circle of covered wagons, the cavalry will charge in with a joyous noise of bugles and salvation.

The Greeks knew better. Anaximander presided over the case in 560 B. C. and delivered the following judgment:

The Non-limited is the original material of existing things; further, the source from which existing things derive their existence is also that to which they return at their destruction, according to necessity; for they give justice and make reparation to one another for their injustice, according to the arrangement of Time.³

They make reparation for the sin of their existence, for the breaking up of the One into the many. The pieces of the One are things, and things are what man holds onto to maintain the vanity of his own existence.

And before Anaximander, Homer knew better. When the Achaeans invade Troy, they build a wall upon the shore where their ships are beached. Nature builds permeable membranes, but only man is vain enough to build a wall. Behind that human form set between the opposites of sea and land, man holds out for a while. But after that while, the forces of erosion wear it down, and all that bright armor is tumbled into mud.

So within the shelter the warlike son of Menoitos tended the stricken Eurypylos, and meanwhile the Argives and Trojans fought on in massed battle, nor was the Danaans' ditch going to hold them back nor the wide wall above it they had built for the sake of their ships, and driven a deep ditch about it, and had not given to the gods grand sacrifices so that it might guard their running ships and their masses of spoil within it. It had been built in despite of the immortal gods, and therefore it was not to stand firm for a long time. So long as Hektor was still alive, and Achilleus was angry, so long as the citadel of Lord Priam was a city untaken, for this time the great wall of the Achaeans stood firm. But afterwards when all the bravest among the Trojans had died in the fighting, and many of the Argives gone in their ships to the beloved land of their fathers, then at last Poseidon and Apollo took counsel to wreck the wall, letting loose the strength of rivers upon it, all the rivers that run to the sea from the mountains of Ida, Rhesos and Heptaporos, Karesos and Rhodios, Grenikos and Aisepos, and immortal Skamandros, and Simoeis, where much ox-bide armour and belmets were tumbled in the river mud,

and many of the race of the half-god mortals. Phoibos Apollo turned the mouths of these waters together and nine days long threw the flood against the wall, and Zeus rained incessantly, to break the wall faster and wash it seaward. And the shaker of the earth himself holding in his hands the trident guided them, and hurled into the waves all the bastions' strengthening of logs and stones the toiling Achaeans had set in position and made all smooth again by the hard-running passage of Helle and once again piled the great beach under sand, having wrecked the wall, and turned the rivers again to make the way down the same channel where before they had run the bright stream of their water.⁴

As long as Achilles is angry, the war goes on. As long as passion is attached to form, the conflict rages.

Beneath us is the molten core of earth, above us is the burning radiation of the solar wind. Behind the wall of the earth's magnetic field, we keep ourselves together until those apocalyptic times when the poles reverse themselves and every valley is exalted and every hill made plain.

Whether it is the thin film of the biosphere, or the thin wall of the Achaeans, man lives at an interface between opposites: earth and sky, sea and shore, life and death. Yet it is precisely the interface between opposites that is the place of transformation, and the energy of that transformation comes from remaining poised at the perilous edge; a slight movement to either side brings dissolution into uniformity.

We live at an interface between order and disorder, and cannot move into one singly without destroying the disequilibrium that is basic to change and evolution. Order and disorder, energy and transformation: it almost seems molecular. Put enough energy into the lattice, and the metal will turn into a gas; slow down the volatile gas, and you can have metal to outlast an eon. Once again, the Greeks seems to have understood the nature of the choice. In Thucydides' Peloponnesian War, the choice is dramatized in the conflict between Sparta and Athens. Be like Sparta and you can live with your highly ordered, barracklike institutions intact for eight hundred years; be like Athens and you can create everything we know as Greek culture and burn out in ninety years. It is a choice between a Spartan death in life, or an Athenian life in death. And the choice is all a matter of values.

How does one hold onto values in an age of the collapse of values? How does one create forms in an age when all forms are coming apart? Like the wall of the Achaeans, our industrial civilization has been built in despite of the gods and now the forces of nature are wearing away at it. But this is not the first time individuals have had to live on while the light of their civilization sputtered.

Like the sixth century A. D., the sixth century B. C. was an age of darkness. The civilizational waves of Sumer and Egypt were receding; whatever was left of the original cultures was lost in the mud and shallows of militaristic states, R. M. Adams has shown that, in the evolution of urban society in Mesopotamia and Mesoamerica, cultures began as theocracies, became militaristic polities, and ended up as conquest states.⁵ Another way of looking at this evolutionary process is to see that a culture begins in an explosion of myth, a sacred image of nature, self, and society that unites all men in a common dream, and then slowly the forces of routinization take over and the dream begins to fade. The prophet becomes a priest; the shepherd-king becomes a Solomon the Magnificent. As the forces of palace, marketplace, and army develop, the myth decays until nothing holds man together but brute force. The disintegrating polity is finally compressed into the militaristic fascist state. Since every state organized for conquest also organizes its enemies to conquer it, such militarism creates the dismal cycle which leads to the destruction of civilization.

According to tradition, Pythagoras was carried away from Egypt to Babylon by the conquering armies of Cambyses. One can picture the historical landscape against which the sage moved: nothing left of the civilization of either Egypt or Babylon, only a recent memory of the unending movement of armies: Hebrew, Assyrian, Persian, and Mede. The light of civilization that had flamed up in the fourth millennium B. C. was now going out, but in the dim light the shadows threw into greater relief the very weakness of that form of human culture

Civilization had been based upon writing, on the break-up of the unity of the tribe into the literate and the illiterate. It had been based upon urbanization, on standing monuments and standing armies, and, ultimately, upon slavery. The polarities of the age of civilization were the center and the periphery, the temple of the priest and the desert of the prophet. As the centers had decayed, the pastoral vision of the eternal desert had been expressed by Abraham, Moses, and Amos. Then in the sixth century B. C. a new wave of prophecy arose and addressed itself not merely to the moral decay of one center, but to the moral decay of the very idea of civilization itself. Across the world, from Italy to China, a new race of prophets confronted the contradictions of civilization. The vision of the prophets was one of universal religions. It was not a validation of one's own tribal god, for that too easily could grow into the civil religion of a conquest state; it was a vision of the aboriginal brotherhood of man that stood before the walls and battlements of civilization had been raised.

The sixth century B. C. is one of the darkest and the brightest periods in history; it is the age of the Second Isaiah and Daniel, Jeremiah, of Pythagoras and Zoroaster, of Buddha, Lao Tzu, and Confucius. Why did they all come at the same time? A Jungian would invoke the collective unconscious of the race, a Hopi would speak of the *kachinas* from other worlds who supervise our evolutionary development, and a Christian poet would answer:

Because the Holy Ghost over the bent World broods with warm breast and with ah! bright wings.

Let us indulge in a Pynchonesque paranoid fantasy to image that the prophets of the sixth century are part of one universal conspiracy. Religion is, after all, supposed to be a subversive conspiracy, "For we wrestle not against flesh and blood, but against principalities, against powers, against the rulers of the darkness of this world, against spiritual wickedness in high places." 6 Certainly the conspiracy-theory of history would explain what Pythagoras and Zoroaster were doing together in Persia.

From Egypt and Mesopotamia, Pythagoras took his experience of the mystery schools to the western lands of Magna Graecia in Italy to establish something new, not a hierophantic mystery school for temple initiates, but a secular school for the leaders of society. In short, Pythagoras built the first university and laid the foundations in mathematics, music, and physics for the science upon which Western Civilization is built.

Marshall McLuhan has described the process of change as one in which the sloughed-off environment becomes a work of art in the new invisible environment. 8 This is one way to present the Hegelian dialectic of historical growth. A visual image of the process of aufheben is the spiral: we turn back to the past, reconstitute it, and then turn away from it in a new direction. The strategy of change for Pythagoras was to make a synthesis of the religion and science of the dying Near Eastern civilizations, and then miniaturize them as a work of art in the new and still invisible environment of Western Civilization. The old culture became a curriculum in the new culture. In terms of paleontology, this kind of evolutionary change is an example of the principle of Romer's Rule: "The initial survival value of a favorable innovation is conservative, in that it renders possible the maintenance of a traditional way of life in the face of changed circumstances."9

At the time of Pythagoras, the Egyptian mystery schools were no longer forces of culture and civilization-building; they were probably priestly bureaucracies subsidized by the state to pass on harmless traditions by rote. The only way to recreate the original purpose of the mystery school was to do something radical, radically conservative. And so Pythagoras created the secular school, the university.

As civilization was moving toward entropy, he created a new form to hold old values against the flow of time.

The tragic background against which the school of Pythagoras at Croton was figured continued, however, to its end. Many were accepted into the Pythagorean discipline, but some were rejected as morally unfit. One of the rejected students is reputed to have raised a rebellion against the influence of the school. In the conflict, the school was burnt to the ground. The Pythagoreans fled throughout Greece, but, in their flight, they took the message to the Greek world. Like a seed-pod exploding in its death, the school created new lives, and one of those lives was Plato and his Academy.

Plato's Academy lasted from 385 B. C. to 529 A. D.; it became the archetype for all the universities that followed. Pythagoras's school at Croton lasted for only twenty years. The Pythagorean tradition went underground, but like an underground spring it flowed beneath the foundations of many of the schools that came after. Iamblichus in Syria, Ficino in Florence, Copernicus in Frauenberg, Bruno in Nola, and Heisenberg in Munich: all identified themselves as Pythagoreans. Pythagoras may have died as an old man in exile and despair at the destruction of his life's work, but the success of his short-lived experiment rivals the success of institutions that endured for centuries.

The Pythagorean school at Croton and the Platonic Academy in Athens exemplify two different ways to hold values against the forces of disorder. One form is the cultural strategy, the other is the permanent institution. One short-lived strategy that affected the life of British civilization, with such longer-lived institutions as Canterbury, Oxford, and Cambridge, was the monastery-school of Lindesfarne. Founded in 634 on Holy Island off the coast of Northumbria, Lindisfarne was another attempt to create light in an age of darkness.

Once again, the sloughed-off environment became a work of art in the new invisible environment. The old Graeco-Roman civilization became a curriculum in the new invisible environment of Christian civilization. The school at Croton was not an Egyptian mystery school, and the monastery-school at Lindisfarne was not a Roman Catholic church, but an Irish one. The Roman Church was based upon the imperial model; each city contained a bishop who was answerable to the bishop of bishops in the mother of cities in Rome. There were no cities in ancient Ireland and Scotland, and so the monastery was set in a totally different culture. The abbot of a monastery was no prince of a church, but a common priest. The Irish Church was no outpost of an imperial ecclesiastical Roman legion, but the continuation of archaic religious forms derived from pagan Ireland and syncretistic Egypt.

If, according to Romer's Rule every innovation is conservative, it is easy to see that the innovations of the Celtic Church enabled some of the old mystical traditions of archaic Ireland to live on under changed historical circumstances. As Pythagoras had out-mystified the hierophants of the mystery schools of Egypt, so St. Columba out-druided the druids. ¹⁰ In each case, the innovator was more in the spirit of the tradition than the traditionalists.

The Celtic Church identified itself as the mystical Church of John and not the temporal Church of Peter, and, until the Synod of Whitby in 664, which was to shift the influence away from the Celtic to the Roman Church, Lindisfarne was the voice of Christianity in England. With the monastery school as their base, the great saints Aidan and Cuthbert went forth to convert pagan England. In less than thirty years, the work was done. After the defeat of the Synod of Whitby, the Irish monks under Colman went back to Iona from Lindisfarne. Though some monks staved behind, the great age of Lindisfarne was over. At the turn of the eighth century, the Lindisfarne Gospels were illuminated in memory of Cuthbert, but even great art could not defend the vision. A few years later, Lindisfarne was overrun by the Danes and burnt to the ground.

The burning of Lindisfarne, like the burning of the school at Croton, reveals that many of these efforts to create light are figured against intensely dark backgrounds. In modern times the Bauhaus seems to be a preeminent example of a cultural force arising at the same time that the opposite forces of Nazism were growing all around it. And once again, it was the very dissolution of the Bauhaus that carried its energies to London and Chicago. 11

What we can learn from Croton, Lindisfarne, or the Bauhaus is that a small and short-lived community can serve as a catalytic enzyme to effect a change in the entire organism of a civilization, and that sometimes these changes are as important as the more obvious contributions of permanent institutions. Institutions are appropriate structures for the continuation of a tradition, but they are not appropriate forms for the creation of the new or the revitalization of the old.

The other principle we can learn from Croton and Lindisfarne is the necessity of conserving a civilization by intensifying it through miniaturization. Pythagoras miniaturized the Near-Eastern civilization; the Irish monks miniaturized Graeco-Roman civilization; now we need to miniaturize industrial civilization.

The sloughed-off environment is industrial civilization; the invisible environment is what Teilhard de Chardin called "the Planetization of Mankind." To turn industrial civilization into a work of art in this still invisible environment, we must not only miniaturize our factories, we must also miniaturize the great universal religions which created the basis of internationalism. The universal religions were created in response to the contradictions of civilization, but we are no longer living in civilization. The polarities between elitist center and provincial periphery have been overcome by modern communications and spiritual consciousness. Planetary culture is not the international civilization of London, Paris, Tokyo, and New York; it is the new consciousness in which "The center is everywhere and the circumference nowhere." The universal religions were the precursors of planetary culture, but now that we are moving from civilization to planetization, we need to take up (aufheben) these religions and miniaturize them in a curriculum for a new culture.

If we are going to humanize a technology that now contains thermonuclear warfare, ecological destruction, and such subtler destructions as psychosurgery, electronic manipulation of the brain, aversive therapy, and behavioral modification, we will need more than the liberal humanism expressed in the implicit system of values of the behavioral sciences and the traditional humanities. The world view of the liberal intellectual is a Marxist-Freudian mapping of the outer world of society and the inner world of the psyche; but that sophisticated world view does not contain the celestial and cthonic energies we need to appreciate the machine for what it is worth. To see technology in proper scale, we need cosmic consciousness, and that consciousness comes more often from meditation than from reading Marx or Freud.

If we cannot humanize our technology with liberal humanism, we can with animism. And that is the importance to the contemporary world of animistic communities like Findhorn. ¹² If we can converse with plants, hear the spirits of wind and water, and listen to the molecular chorus singing the ninety-nine names of God in the crystal lattice of the metal of our machines, then we can have the consciousness we need to live in a culture in harmony with the universe.

In an unconscious fashion, man has already begun to shift away from materialism to information, and the giantism of the machines he once worshiped is giving way to tiny circuitry. If the space program sent off rockets to the moon that were taller than skyscrapers, it spun off to earth machines in which millions of electrons danced on the head of a pin. As our entire technology becomes as miniaturized as our hand-held calculators and desk-top computers, the whole scale of the human body to technology changes. Like paleolithic hunters of the Solutrean culture, whose tools were pieces of sculpture in their hands, we will hold our technology and not be held by it.

As the scale of man to machine changes, so does the scale of the individual to institutions. In an electronic technology, one need not drive to a Berkeley-type university to watch a lecture on a television console with four hundred other students; he can stay home to watch the Berkeley university program on cable television, and, if he doesn't like Berkeley, he can switch the channel to Harvard or Oxford. As more students stay home, and as more information is carried on cable, the university will no longer have to sustain a huge complex of buildings. The university will grow smaller as it grows larger and the university will be everywhere and the campus nowhere.

As more and more information is carried in the home, the individual will experience a need for new groupings. On the turn of the spiral, man will return to the tribal forms of the hunters and gatherers, and in these societies, "The magic numbers are 25 and 500."13 As the individual moves out of the environment of the institution, a symbolic environment in which he gains his information through the reading of buildings and books, he moves into the larger environment of the Noosphere, a vibratory environment he experiences through meditation, ritual chanting, and dance. As the cosmic environment expands in the Noosphere, the human community compensatorily contracts into the hunting band of 25 or the planetary village of 500.

As one moves from the institutions of civilization in church, university, and capital-intensive factory into the new planetary villages, he moves into a religion without priests, a university without professors, and manufacture without factories. The factory mass produces cheap goods with built-in obsolescence, but in an era of scarcity of materials in which "The Limits to Growth" are envisaged, we will no longer be able to afford the waste of energy and materials contained in the mass production of cheap goods. Of necessity, we will have to return to the medieval craft-guild workshop. Since the goods will have to be crafted to last a lifetime, they will have to be built with a Zen mindfulness to every detail, and so the labor-intensive workshop will contain, not an army of workers, but a mystery-guild of contemplatives. Like the furniture of the Shakers, the goods of the planetary village will be very good indeed. 14

In a labor-intensive community of contemplatives, more is done with less capital, so money is surrounded, compressed, and miniaturized by a culture not based upon greed. As inflation prices industrial civilization out of existence, communities of caring and sharing are brought into being and families are forced into finding other means than money to structure their lives. In a culture of Buddhist "Right Livelihood", money is not eliminated, any more than technology; both are miniaturized. The Buddhist tone of "Right Livelihood" may sound foreign to the American Way, but, interestingly enough, just

such a political economy was envisioned by Jefferson. In words that ring out as a startling prophecy of our contemporary fascination with decentralized China, Jefferson wrote to Hogendorp in 1785:

You ask what I think on the expediency of encouraging our States to be commercial? Were I to indulge my own theory, I should wish them to practise neither commerce nor navigation, but to stand, with respect to Europe, precisely on the footing of China. 15

As the Church lost the vision of its founder, so has the country lost the vision of its founding fathers, but now that industrial society is strangling in its own contradictions, we have one last chance to re-vision human society.

The Protestant Ethic and the Spirit of Capitalism spurred the growth of industrial civilization, so it is natural to assume that the growth of planetary culture is being spurred by a new spiritual sensibility. Side by side with the miniaturization of technology, we are also experiencing the miniaturization of the great universal religions. The esoteric is the miniaturization of religion, and just about every esoteric school is now opening itself to the new global culture of our technological society. Yoga, Sufism, Tibetan and Zen Buddhism, Yaqui Shamanism, and Celtic animism: the planet has become a Ptolemaic Egypt of syncretistic religious movements and the Alexandria of it all is America. And this is no accident, for all these esoteric techniques have what we need to transform our exoteric technologies. Europe and Asia groan under the burden of their own past greatness, but America is still the place where all the cultures of the world can come together in consummation of the past and realization of the future.

At the contemporary Lindisfarne in America, we have tried to turn the old culture into a new curriculum. We have neither guru and disciples nor Church and worshippers, but we do have a spiritual fellowship in which men and women serve as teaching fellows in Yoga, Buddhism, Sufism, Esoteric Christianity, and Mystical Judaism. In a college, the curriculum is based upon the Great Books of Western Civilization, but at Lindisfarne the curriculum is based upon the Great Techniques for the transformation of consciousness. Lindisfarne's scientists, artists, and scholars have one thing in common: their lives are rooted in one of the great contemplative paths of transformation. As the school at Croton was not a mystery school, and as the monastery at Lindisfarne was not a Roman Catholic Church, so we are not a simple continuation of the past. We have a farm, but are not a farm; we have children in the community; but we are not a private school; we have postdoctoral fellows, but are not a think-tank; we have retired people, but are not a retirement community; and we have yogis, but we are not an ashram. We

have gone back on the spiral to the pre-industrial community to create, on a higher plane with the most advanced scientific and spiritual thought we can achieve, the planetary village. We have moved in consciousness out of the large nation-state into the even larger planet; we have moved out in body from the city to the smaller multi-generational community. With the economic thought of E. F. Schumacher of London, the technological thought of the New Alchemists, the agriculture of Findhorn, the scientific philosophy of Whitehead, and the religious thought of Sri Aurobindo and Teilhard de Chardin, we are trying to create an educational community that can become a mutational deme in which cultural evolution can move from civilization to planetization. to planetization.

In the nineteenth century the polarities of culture were the romantic artist and the industrial engineer. Then Shelley could say that: "Poets are the unacknowledged legislators of the world." But now that is no longer true. In the shift from civilization to planetization it is the mystic who has become the unacknowledged legislator of the world: a Sri Aurobindo or a Teilhard de Chardin, and not a Norman Mailer or an Andy Warhol. The artist cannot save civilization, and in the search for form it is not the artist who will discover and create the new culture. We have lived long enough with the myth of The Artist, and now that the paintings decorate banks and the poems lead to suicide, it is time to move on and let the artist remain behind, whimpering in the corners of his mind. 16

In abandoning The Artist we will not lose the beautiful, we will regain the beauty the artist lost sight of. Pythagoras, Columba, Quetzalcoatl: the builders of cultures were themselves versed in the arts of civilization and could provide the myths that would sustain new artists for generations.

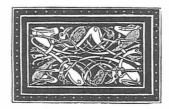
Art is dead. Science is dead. 17 Now even the Pope is willing to say that: "It seems the Church is destined to die." 18 Our entire civilization is dying. But what is death? Consider the yogi: when he stops his heart consciously, he is dead by technical definition, but actually he is reborn, for in taking the energy out of the cardiovascular into the central nervous system, he experiences ecstasy and enlightenment. He does not die,

he dances his death. So now we need to dance out the death of industrial civilization and experience, not its painful, apocalyptic destruction, but its joyous, millennial de-structuring. And if we cannot, then we will not create our destiny, but be forced to endure our fate.

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- William Irwin Thompson



Self-Health:

Exploring Alternatives in Personal Health Services

THE PROBLEM COMPLEX

Health Services and Society

In recent years much of the discussion about health care problems has centered on a "crisis" which is defined in terms of rising costs, lack of necessary primary (basic) services, and inequitable access to existing services by certain groups, particularly poor people, rural dwellers, older people, blacks, and women.¹ Underlying these and related problems is the fundamental issue that modern health services, of which the United States has the high technology prototype, make the same excessive use of natural resources and capital as do many other phases of our energy intensive, oligopolistic society and therefore serve to reinforce them. The common root lies in the manner in which our society directs the use of its resources, including its technology, toward accelerating the growth of affluence especially for those who are in positions to decide on the allocations of resources and the direction of private and public policy.

Defining the "best" and "quality care" to mean specialized services, a system has been developed for the care of health and its repair which overwhelmingly emphasizes specialized facilities, equipment, and personnel. Of necessity, centered in large and therefore impersonal (inpatient) institutions, these services are energy and capital intensive to develop, use, and maintain. The costs must be seen to include the length and types of training required for the more specialized and highest earning personnel. The training of physicians now absorbs from two-thirds to three-fourths of all health training funds from private and public sources.

Such patterns have built-in cost escalators. These arise principally from the increasing costs of energy and capital, and from the entrepreneurial nature of drug and equipment firms as well as physicians, who have the greatest influence on the patterns of health services utilization. The current system is further inequitable in its effects. This is not only because high costs deny access to those with low incomes. Inequities arise because (1) the system must be based in large urban areas in order to sustain itself and also because (2) the structure of the occupational pyramid most often allows only those privileged by long, costly educations and advantageous family connections to reach the higher paying, more secure positions, with the results that these are filled mainly by white men from metropolitan, affluent backgrounds.

Effects of Health Services

As is well known, the resulting pattern of health services is quite different from what it would be if its design were based on illness patterns of the vast majority of people in this country.

The most prevalent acute and chronic diseases, with few exceptions, are either simple and self-limiting or untreatable, and usually bothersome for those who have them. Basically, therefore, symptomatic relief is in order. Extensive attempts at diagnosis and treatment, especially in large, specialized settings, expose patients to such risks to their health as drug reactions, infections, and the unnecessary use of radiation and of surgery. These are incurred more frequently by poor people, women, and children. No less important is the almost inevitable sense of isolation and helplessness fostered by these large organizational settings.

In brief, the most frequent acute problems (e. g., respiratory diseases, injuries, dental caries), chronic processes (sinusitis, arthritis, high blood pressure, varicose veins, hemorrhoids), and death-causing illnesses (heart disease, lung and gastro-intestinal cancer, stroke) are closely tied to our societal patterns, which are reflected in the amount and types of food we eat, the stresses of competition and of compressed time schedules, speed, noise, accidental and other violence, and the consequent use of artificial and purchasable forms of relaxation (nicotine, alcohol, caffeine, and other drugs), passive leisure and the concomitant lack of exercise, and the pollutants that stem from our uses of technology.

The illness patterns of poor people in societies as affluent as ours differ somewhat from those of the majority, because they are deprived of the possibilities of health sustaining resources, such as adequate food, access to fresh air, and good housing. They tend therefore to have more severe forms of the acute diseases, which the affluent can prevent or have treated successfully. They also incur more of the chronic diseases typical of a modern, affluent society, and with more disabling effects. The crux of the matter is that, just as the pattern of health services reflects the society, the pattern of illness stems from the life patterns we follow. In the face of damaging life situations, health services, as we know them, can do little to prevent or cure most present illness. At best, they can control some of the damage and delay a few debilitating and life-threatening processes.

Reinforcement by Reforms

Reform efforts have centered largely on (1) increasing the supply of primary services, which are less costly and can be delivered in ambulatory health centers, (2) distributing services to areas which lack them — mostly rural and poor communities, and less energetically to date (3) determining which services are, in fact, beneficial and cost-effective for improving health. This last point has become increasingly urgent as tax funds pay increasingly larger shares for the development, use of, and training for health services.

However, typical of U. S. social change, reforms are not systematic and well-planned. The sheer, often organized, strength of those who see their interest in maintaining the status quo permits only piecemeal compromises in legislation and in implementation of policy. This places severe limits on whatever positive impact reforms might have for consumers.

Further, most of the types of changes now being developed are not likely to be more equitable and cheaper than the health services we have at present. Such changes are mainly (1) energy intensive in that they require specialized satellites, computers, recordkeeping, monitoring by hardware and ever-changing, repair-demanding information systems. (The lack of cost effectiveness of multiphasic screening and the overuse of laboratory and other diagnostic tests by physicians and non-physician practitioners are but two examples.) (2) Where the innovations are more labor intensive and involve training new types of non-physician primary care personnel such as physician assistants and nurse practitioners, the reforms are inequitable. Lower-income people, minorities, and women, who are entering these new ranks, receive cheaper, shorter training, and end by working for modest salaries under the direction of highly paid, fee-for-service physicians, serving proportionately more lower-income, rural, non-white patients.

Thus, in spite of some attempt at reform, the occupational pyramid that characterizes the 4½ million health service personnel is not changing its shape. More steps are merely being inserted. Should this continue, under the current delivery patterns, basic health services will be given to the lower income groups by non-physician generalists and to the more affluent by physician specialists. In this way, the "new health professions" relieve the specialized of the pressure to change.

To the problems raised by the piecemeal approach and by the cost-inflationary, inequitable character of reforms must be added the doubt that reforms so packaged could convey to the patient the sense of being-cared-for which seems crucial in the mobilization of whatever internal-external resources for healing he possesses, whether these be tangible and measurable or not.

One or two extensive and systematic proposals for reform have been introduced into the Congress, but their net effect may well neither reach the desired equity and cost-effectiveness, nor substantially improve health in this country. This is mainly because their eventual passage and consequent implementation, even if unencumbered by many all-too-likely weakening compromises, would take at best ten to fifteen years, by which time they would be outdated. By then it will be clear to more than the few, who now are "crying in the wilderness", that even an excellent system of personal health services, as we know them (currently costing over a hundred billion dollars a year), cannot do much to improve the health of a high technology, affluent society as we know it.

Successes Elsewhere

Other countries, both affluent and poor, which have improved the health of their populations, have done so by taking some of the things we attempt piecemeal and added other components. These have been integrated into a unified system of health services, which is decentralized in its delivery of care to the population and is operated on a non-profit basis. More importantly, they have tied the system into the planning and implementation of programs of community development which assure the production and improved distribution of critical health-sustaining resources, including food, water, income, housing, environmental protection, transportation and communication, etc.²

The Context for Alternatives

Those who seek to improve health rather than repair damage must view the problem in the context of (1) the environmental conditions for health, including

- (a) the supply of critical health-sustaining resources, avoiding forms with negative effects, and
- (b) the distribution of those resources to avoid both excesses and deficits; and
- (2) the impact and limitations of a personal health service system on prevention and amelioration of illness, and repair of damage, including
 - (a) the production and supply of safe and efficacious services and
 - (b) their distribution to those who need them (see the diagram).

A SEARCH FOR AN ALTERNATIVE

With this overall perspective, we have formed an organization called Alternatives in Health Care, which is undertaking to develop a self-health system. Our specific aim is to develop systematically the information base and methods for an organized, community-based program of self-health, with linkages to health and other community services and health-sustaining resources (e. g., food co-ops, transportation, etc.), and to plan for its implementation and evaluation.

We envisage the content of self-health to be a systematized, contemporary "folk wisdom", that has been checked for its safety and, where needed, includes the use of appropriate (i. e., simplified, low cost) technology. Such a program of self-health would allow persons as individuals and as members of various family-household arrangements to develop their capacity to perform periodically and when necessary, a self-assessment, including a health history. This would be intended to prevent, ameliorate, or repair common bodily abnormalities without reliance on, and prior to contact with, a formally organized system of health services.

Our particular focus, within the whole program, is on the development of an alternative to basic formal, primary medical care for use by persons, who, whether for economic or geographic reasons or by personal preference, do not have ready access to the conventional medical system.

The need, or at least the potential usefulness, of a systematic self-health program seems evident, given the current situation of health, health services, and the distribution of health-sustaining resources in this country. Under the present system, outcast groups (rural dwellers, poor people, certain minorities, elders, women) most likely will continue to be deprived of protective resources and to be overly vulnerable to illness, to be unnecessarily damaged, and so to be in greater need of repair than others — and will have less access to repair (medical) services.

Past experience has shown that "health education" does not change behavior unless people gain access to alternatives from which to make new choices. Further, health service utilization patterns show that:

- (1) people seek services for symptoms which can be dealt with on an ambulatory basis and handled by non-specialist practitioners;
- (2) adults' assessment of their own and their children's health is relatively accurate;
 - (3) much illness is self-treated;
- (4) where self-care has been taught to sick people and their families (e. g., home care), the effects have been beneficial;
- (5) given the high average levels of education in this country and the wide availability of informal teaching and training media and methods, current self-assessment and self-care could be improved;
- (6) integrating conceptually and clinically the now separate categories of mental, emotional, and physical states something that people looking upon their own illness tend to do, anyway is efficacious for the care of personal health.

At present, the vast majority of people, either affluent or poor, have no alternative to the formal system of health services to the extent that they have access to alternative resources in other areas. With regard to food supply, energy, transportation, communication, small construction and machine repair, there are effective do-it-yourself resources in the form of home gardens, cooperatives, bicycles and tools. In recent years, organized systems have begun to be developed that offer alternatives to ordinary people. The New Alchemists, for example, are working in food and energy production. The Clivus-Multrum is a simple effective solution to organic waste disposal and recycling. In transportation and tools, the Intermediate Technology Development Group has opened options to people in the poor countries.

The development of an appropriate, simplified technology which would demystify medical specialism and provide for the care of personal health are infantile in comparison. Ironically, many people who otherwise think and live in quite radical ways often pay conventional obeisance to the symbols and myths that enshroud medical care.

Some self-help efforts have been made and are of great value to those to whom they are available. Most common has been the translation of certain kinds of medical information, which can alert consumers to symptoms they are then encouraged to present to physicians; others add patient advocates to steer consumers and interpret for them during their subsequent encounter with the medical system. Less conventional alternatives are described most often in books and are therefore suited primarily to individuals who buy books and learn well by reading. Other methods include small groups which within their circle emphasize the psychic component of healing and maintaining health ("healthing").3

The women's movement and a few Third World political and labor groups (e.g., Black Panthers, Young Lords, United Farm Workers) have gone beyond education, self-referral into the system, or individual self-care as isolated methods. In a few cities, women's clinics have been established which teach women selfcare and give them the information and the other tools they need to be independent of the clinic. Limitations are inherent in the focus which is on women mostly in their childbearing years and also in the lack of contractual ties with the system of formal health services or with the other systems that control the production and distribution of the more crucial health-sustaining resources - food, transportation, jobs, etc. Some Third World groups have attempted the latter, to some extent successfully.

The form of organization within which self-health is taught and practised determines the possibilities for its effectiveness. If it is packaged in print, its usefulness will most likely be limited to isolated individuals. If it is practised in a small, mutual-support group, its effectiveness will depend on the life of the group. With the addition of clinic resources, it would extend its usefulness to a geographic population over a longer time span and may ameliorate and repair some damage to

health. But without ties that create influence over at least some of the resources that are essential for sustaining health in a community – such as the availability and distribution of food, jobs, control of air and water pollution, etc., there is little likelihood for fostering the changes in available options and, hence, the personal decision-making that can prevent damage to health.

THE SHAPE OF SELF-HEALTH

With these uncomfortable realities in mind, we ask, what would an organized self-health program look like? Among the basic questions we must address are:

What is the essential content of self-health?

Within the limits of safety and efficacy, what should ordinary people learn about recognizing, assessing and ameliorating the signs and symptoms of the most common causes of illness, disability, and death?

What techniques should they know, such as history taking, observation, inspection, palpation, percussion, auscultation? What other tools and skills should they have in order to assess or prevent problems, and apply therapies? What conventional techniques, tools and equipment could be adapted for home or small community use in simplified form and at low cost?

As we plan the implementation of such a program, we shall have to do so on two levels. At the individual/ small group level, there are such questions as:

What are the limits of self-health that will be safe and efficacious? What are the risks to health relative to the risks of having no ready access to any form of care, alternative or traditional? At what point(s) is it appropriate for an unwell individual to make contact with the formal system of medical services to obtain consultation, and the parallel question, what organized means might a community develop to assure such contact, when needed?

A Context for Alternatives in the Care of Health: EFFECTS OF ENVIRONMENT AND PERSONAL HEALTH SERVICES ON HEALTH* Nancy Milio

ENVIRONMENTAL CONDITIONS FOR HEALTH**

IMPACT OF PERSONAL HEALTH SERVICES+

	positive	negative	positive	negative
(ecological-technological aspects of health-sustaining resources)			(treatment aspects)	
EFFECTS (what is suproduced, suppoduced, how, and how much) Fig. 1. Sec. 1.	diverse food choices food fortification cale sanitation sewage disposal temperature, humidity control (pe H ₂ O purification, indoor availability rapid transportation, communication high plant/animal food production cio-economic distribution of Majority of people supe	non-nutritive, anti- nutritive foods (empty calories, chemicals) air and H ₂ O pollution food contamination (pesticides, nuclear fallout) superconsumption of energy; urban decay work place contaminants and carcinogens on of health-sustaining resources) superconsumption life-style: observer/passive leisure;	††Px (unwanted births; certain communicable diseases) ††Rx (antibiotics; Tbc; HBP††; tumor excisions) decreased discomfort, pain decreased disability decreased unwanted death selective and early screening with follow-up Rx (lead poisoning, diabetes HBP, glaucoma) health education combined with alternatives to current practices	iatrogenic (diagnostic tests; x-ray; drugs; cancer seeding; anaphylactic shock; microbe resistance) nosocomial (hospital-induced infection; disfigurement; sex bias in Rx) unneeded surgery (gynecologic, tonsillectomy; mastectomy; vein stripping mental (demeaning treatmer passive Rx; lack of or uninformed consent) screening without follow-up overtreatment (diabetes, pre nancy; delivery; cardiac intensive care)
(what is waccessible for to whom) h	naving secure moderate or affluent incomes; widespread access to: food, clothing, nousing, education, cransportation, communication, health services	work pressure; sedentary work; alcohol, nicotine, drugs; obesity, HBP††, non- questioning attitudes; im- personal relations in large scale orgs.; injury, accidents; non-systematic alternatives. minority lacking income and/ or health sustaining resources (food, clothing, housing, transp./communic.; education, health services)	remedial (repair of illness resulting from socio-econ. inequities). redistributive (in-kind: services, jobs).	inequities in: services: location and types; personnel (entry, move- ment restricted; pyramids of privilege & pay); decisional input (patient level; policy, delivery levels). lack of systematic, safe & efficacious alternatives

*Data cited in N. Milio The Care of Health in Communities: Access for Outcasts (N. Y.: Macmillan, 1975).

**See J. Powles "On the Limitations of Modern Medicine "Science, Med. & Man 1:1-30 (1973); T. McKeown et al. "An Interpretation of the Modern Rise of Population in Europe" Pop. Studies 26: 345-83 (Nov. 1972)

†See A. L. Cochrane Effectiveness and Efficiency (London: Nuffield Provincial Hosp. Trust, 1972); I. Illich Medical Nemesis (London:

Calder and Boyars, 1975).

++HBP = high blood pressure; Px = prevention; Rx = treatment

What forms would the content (information) of self-health take? What methods (interpersonal and other) would be used to convey the necessary knowledge and skills initially and on an ongoing basis (e. g., from labor intensive to electronic technologies)? What media and equipment would be needed?

At the community/institutional level, there are further questions:

How would policy be made and implemented? Operationally, who would convey self-health information (e. g., indigenous trainers); how would the trainers be trained (e. g., as practitioners or as monitors, support personnel, and connectors with formal health services)?

What other informational and support resources are needed to be either locally available or/and to have potential for development? What linkages with formal health training and services systems and other health sustaining resources (food, housing, etc.) should be made, formal or informal, from indigenous or external sources? How could such a self-health program be adapted to a low income area such as rural poor, and an affluent one such as sub-

There are, finally, questions of monitoring and evaluation as well as of long-term support, should the system be accepted in a given community. Woven into the entire structure also must be some mechanism to estimate

and analyze potential problems and to develop usable contingency plans.

EXPECTATION AND REALITIES

The minimum hopes from our efforts over the next two years are that we shall have a printable program and plans, which can be made available to individuals, community groups and organizations. Students and others in the health services fields may find uses for the content, methods, or data base of our self-health program. People in other countries, who have shown interest in self-health, may find applications for parts of our work.

During this initial period, we hope to establish a working relationship with two communities — one in a rural, low-income area and one in a relatively affluent suburban one — that would like to implement the program over a three to four year period, in order to test its effectiveness.

- Nancy Milio
Ruth Hubbard
Alternatives in Health Care
255 Massachusetts Avenue, No. 1010
Boston, Massachusetts 02115

References

- 1. For data and analysis concerning these problems and their interrelations, see N. Milio, The Care of Health: Access for Outcasts (Macmillan, 1975)
- 2. One of the best analytic descriptions of these is found in
- E. K. Newell, ed., Health by the People (Geneva: WHO, 1975)
- 3. See several articles in *Futures Conditional*, Fall, 1974 (Northwest Regional Foundation, Box 5296, Spokane, Washington 99205)

