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MOONSHINE AND SUNLIGHT

READING in Thoreau sometimes produces an afterglow; it may last even a week, as now. He is so richly opposite to what we are, so consistently so. A historian once remarked that for Americans, the pursuit of happiness has become the happiness of pursuit. Not for Thoreau. He pursued nothing, allowing instead himself to be overtaken. His hungers were all temperate, and for nothing that was not within reach. Yet his life was made of fulfilled engagements. No one, he said, could kill time without injuring Eternity. Leisure brought the intensest, most pleasurable hours of his life. And he found the familiar to be best. "The scenery of Walden is on a humble scale," he said, "and, though very beautiful, does not approach to grandeur, nor can it much concern one who has not long frequented it or lived by its shore." Other men went in search of other sights, but Thoreau, while he traveled some, was most content at home.

Each day brought him a fresh lens for inspecting either the vistas or the minutiae of his surroundings. He had lenses too, for thought.

> Humility like darkness reveals the heavenly lights. The shadows of poverty and meanness gather around us, "and lo! creation widens to our view." We are often reminded that if there were bestowed on us the wealth of Crœsus, our aims must still be the same, and our means essentially the same. Moreover, if you are restricted in your range by poverty, if you cannot buy books and newspapers, for instance, you are but confined to the most significant and vital experiences; you are compelled to deal with the material which yields the most sugar and the most starch. It is life near the bone where it is sweetest. You are defended from being a trifler. No man loses ever on a lower level by magnanimity on a higher. Superfluous wealth can buy but superfluities only. Money is not required to buy one necessary of the soul.

Here we have the man's sole occupation. He was a cataloguer of the soul's necessities. Shelter, food and drink were among them, but only in ancillary degree. And here he was most opposite of all to us. He needed little. To speak now of the soul and its needs is to earn only a vacant eye, a failing ear. The soul's hungers have been deadened by drugs or degraded into insatiable appetites.

Yet poverty and trouble may alter our susceptibilities. In harsh conditions the soul's ear regains its power of reception. And so it is, perhaps, that a century after the New Englander's death, another voice began to be heard. The subject of discourse was the things that are done for their own sakes. The speaker—in this case the writer—was E. F. Schumacher, and in his guise of an economist he spoke of the use of land, noting first that this is no ordinary topic in economics, but highly philosophical, not requiring "a special inventiveness of a technical kind."

> Now, anything that we do for its own sake does not lend itself to calculation. For instance, most of us try to keep ourselves reasonably clean. You cannot calculate the value of this; certainly you cannot apply an economic calculus. In fact, to wash is totally uneconomic. Nobody has ever made any profit out of washing himself. There are many activities, when you come to think of it, which are totally uneconomic because they are carried on for their own sakes. So the first point I am making is that ends, as distinct from means, are not matters of economic calculation. They are not economic but if you like meta-economic. Just as we can have physics and meta-physics, so we can have economics and meta-economics. . . .
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> People believe today that clean air and clean water are worthy objectives, but is land to be considered as an end in itself, worth bothering about? I am afraid we are still a long way from that. Of course, it can still come; you have only to think back about 100 years when many people were quite incapable of thinking of the fifth element as an end in itself, which is of course the human being—man himself. We had theories, which are still leading a ghostly and unpleasant existence, that man was just

> an economic phenomenon. . . . But I am glad to say we have to some extent got away from this; in present-day economics man is generally taken not as a means to an end but as an end in itself. You know what happens when people start mixing up means and ends. . . . you find all through present-day societies all sorts of extraordinary attempts to reduce what we all recognize as final values to an economic calculus. . . . So I am saying that if one mistakes what is an end in itself, and treats it as a means, then there is a degradation of life. . . .
>
> So now we come to our question: Can we say, do we believe, that a healthy and beautiful countryside is an end in itself? The moment we say yes to that, we do not have to discuss any more whether it is economic or uneconomic. . . . We waste our time if we think, this is a matter for scientific proof. No one can prove that it is right to love anybody, or to care for anything, or to have respect for anything. No one can prove that it is right to care for the future. If somebody says to me, "Thou shalt not exploit thy fellow man," I can always answer, "Why not?" There is no conclusion to it in logic. We see intuitively—call it what you like—that there are values that do not have to be argued, with regard to not exploiting or killing our fellow men.

But calculation still rules our lives. We still suppose we can convert the immeasurable into finite quantities and make decisions according to their weight. There are even calculators who think it feasible to put a dollar value on human life, or tell us how many deaths in nuclear war the economy can survive. The language of the calculus—although its axioms are intuitively established—takes no account of intuition, has no terms for recognition of its validity. So we go on pretending to count the incommeasurables, dividing them up into units of value which in fact have no meaning to anybody, and drawing conclusions which give mathematical sanction to the dictates of appetite, even though appetites, like intuitions, require no proofs to make them acceptable.

Yet there is a sense in which the passage of time renders our intuitions into calculable values. If we ignore our intuitions long enough, they cause finite intrusions on our lives. A final comment by Schumacher takes this into account:

> We know too much about ecology today to have any excuse for the many abuses that are now going on in the management of the land, in the management of animals, in food storage, food processing, food distribution, and in needless urbanization. But as a society we have, at this point of time no firm basis of belief in any meta-economic values, and when there is no such belief economics takes over. This is quite inevitable. How could it be otherwise? Nature, it has been said, abhors a vacuum, and when the available space is not filled by some higher motivation, then it will be filled by something lower, by the small, mean, calculating attitude to life which is rationalized in the economic calculus.

Well, what shall we do? Try to moralize away the clouds of unbelief? Talk learnedly about the calculus of spirit? Tell educators to study the techniques of self-realizing discovery? It doesn't work. Moralizing has the taste of piety and the odor of sanctity, but it offends the integrity of self-reliant souls, and they are the only ones worth reaching, since copycats never make history. They make cultural lag. The virtues are not virtues when practiced at second hand. And as Nietzsche sagely remarked, every vice is a virtue carried to an unlawful extreme. "If you are looking for a Moses to lead you out of the capitalist wilderness," said Gene Debs, "you will stay right where you are. I would not lead you into the promised land if I could, because if I could lead you in, someone else could lead you out." Finally, Milovan Djilas wrote in *The New Class:*

> Throughout history there have been no ideal ends which were attained with non-ideal, inhumane means, just as there has been no free society which was built by slaves. Nothing so well reveals the reality and greatness of ends as the methods used to obtain them.

But aren't "methods" applications of a calculus? Plato would agree to this. In the *Republic* (Book VII) he says that the Guardians should take up the study of calculation in order to learn how to think abstractly, but that this would not be the calculus used for buying and selling, but for "facilitating the conversion of the soul itself from the world of generation to essence and

truth." But Plato also spoke of the hardship in learning this sort of calculus, having Socrates say:

> It is indeed no trifling task, but very difficult to realize that there is in every soul an organ or instrument of knowledge that is purified and kindled afresh by such studies when it has been destroyed and blinded by our ordinary pursuits, a faculty whose preservation outweighs ten thousand eyes, for by it only is reality beheld. Those who share this faith will think your words superlatively true. But those who have had no inkling of it will naturally think them all moonshine.

What are those "studies" that Plato speaks about? He, at any rate, if we take seriously his seventh epistle, wrote no treatise on the subject, there being, he said, "no way of putting it into words like other studies." Only the ignorant or pretenders would attempt it, he declared. He didn't say such knowledge was impossible to obtain, but that—

> Acquaintance with it must come rather after a long period of attendance on instruction in the subject itself, and of close companionship, when, suddenly, like a blaze kindled by a leaping spark, it is generated in the soul and at once becomes self-sustaining.

Were there no preliminary steps his disciples could take? Well, there was the Dialectic—the Socratic interchange to which the dialogues are devoted—and for this the foundation was mathematics, which, we are told by historians of philosophy, Plato taught orally in the Academy. In the *Republic* he explains that when the soul is sunk in the slough of earthly life and its forgetfulness, "dialectic gently draws it forth and leads it up, employing as helpers and cooperators in this conversion the studies and sciences which we enumerated, which we called sciences often from habit, though they really need some other designation, connoting more clearness than opinion and more obscurity than science." Some small notion of what these "sciences" entailed might be obtained by consultation of a work on Pythagorean arithmetic by Thomas Taylor (d. 1835), since Plato was in many ways a Pythagorean philosopher; then, for Kabalistic lore on the same subject there is J. Ralston Skinner's *Key to the Hebrew-Egyptian Mystery in The Source of Measures*, first published in 1875 and recently restored to print. But we are not really recommending these works except, perhaps, as a source of discouragement. The writer, that is, could not understand them and would not give the time for making a sufficient trial.

A discouragement more challenging to our present rational faculties is that provided by Albert Einstein in a conversation in Berlin in 1930, with William Hermanns. Hermanns, a sociologist, relates:

> "I like Albert Schweitzer's remark, 'Reverence for life'," I said. I felt happy—I had come into my own. Also, not for long.
>
> Einstein looked at me with penetrating eyes. "Yes," he answered slowly, perhaps in consideration for my pen, "when you want to learn about creation, you must have a very humble disposition."
>
> There was a pause, and I asked, "People say that you replaced the geometry of Euclid with that of Riemann."
>
> "Yes I used Riemann's geometry because he got rid of the idea that the shortest lines joining any two points are always straight lines." Then suddenly his voice took on a mistrusting tone: "What do you know about Riemann?"
>
> I could have bitten off my tongue for having shown off, yet he was a compassionate man and, noticing my difficulty, continued his discussion of geometry.
>
> "Whatever geometrical system man chooses, it is always a construction of the mind and has no connection with reality, for geometry possesses internal order, which seems to be lacking in reality. Reality does not furnish geometry with axioms."
>
> "`How then," I asked, "can we use geometry to probe reality when the two are not related?"
>
> "We measure the experience of our thoughts against the experience of our observations. Thus we bring order into the world of reality, and make it comprehensible. But always remember: as far as the laws of mathematics refer to reality they are not certain; and as far as they are certain, they do not refer to reality."

Before we start puzzling over what Einstein meant by "reality"—which here sounds like the irrational confusions of the world in which we live—one more passage should be quoted, showing how he used the internal order of mathematics to tame some of the disorders of the "real" world:

> "Many people think," he said, assuming the attitude of a lecturer, and I sat down again, "that the progress of the human race is based on experience of an empirical, critical nature, but I say that true knowledge is to be had only through a philosophy of deduction. For it is intuition that improves the world, not just following the trodden path of thought. Intuition makes us look at unrelated facts and then think about them until they can all be brought under one law. To look for related facts means holding onto what one has instead of searching for new facts. Intuition is the father of new knowledge, while empiricism is nothing but an accumulation of old knowledge. Intuition, not intellect is the 'open sesame' of yourself."
>
> "Could we then say," I suggested, "that empiricism is a horizontal line, while intuition is a vertical line from earth to heaven?"
>
> "What do you mean by heaven?" asked Einstein cautiously, looking at me out of the corner of his eye.

Here we might bring Plato forward into the dialogue and have him say to Einstein: "Those who share this faith"—in Intuition—"will think your words superlatively true. But those who have and have had no inkling of it will naturally think them all moonshine." And Einstein would of course agree. He could no more explain "intuition" than any of the rest of us, although his metaphors for it would probably be better than ours. He was obviously suspicious of Hermanns' "vertical line," if only because of the moonshine element he suspected in Hermanns' "heaven." Hermanns got there *too easily*.

We are still investigating methods or modes of calculation. The sort of calculation we are familiar with—known to physicists, engineers, and mathematicians—will enable us to do and make a great many things, and on a humbler scale fits us for buying and selling, but it does not instruct us, as Schumacher pointed out, in the qualities and ratios of what we do, or ought to do, for its own sake. Is there—could there be—a non-quantitative calculus? And is the master calculator of this system the intuition? But for us a non-quantitative calculus is a contradiction in terms. Yet intuition works, even though people with no inkling of it name it moonshine.

We began this discussion of method and calculation with Schumacher. We may best end by returning to him. In a book published in the year of his death (1977), *A Guide for the Perplexed*, the last (and most important) chapter is concerned with two kinds of problems—the convergent and the divergent. The convergent problems are the ones we are able to solve. To illustrate them he says:

> Take a design problem—say, how to make a two-wheeled, man-powered means of transportation. Various solutions are offered which gradually and increasingly *converge* until finally, a design emerges which is "the answer"—a bicycle—an answer that turns out to be amazingly stable over time. Why is this answer so stable? Simply because it complies with the laws of the Universe—laws at the level of inanimate nature.

The elaborate, man-made portion of the universe is filled with these individually stable designs: they all work wonderfully, but they do not work *together*. That is, while we fit them in and enjoy and profit from them for a while, eventually there are too many of them (like automobiles) or they are too big (like tractors and armaments) and an unlimited list of undesirable consequences results from their combined operation. The knowledge that made the things is not a knowledge of how to harmonize their working with other things, including the living. A point is reached, in short, where the solved problems at one level of existence make endless unsolved problems at another level. These Schumacher calls *divergent* problems. Among them are questions like how shall we bring up our children, and what is *enough* of any one thing, or all the things together. Solved problems which

had convergent solutions have been done away with—killed, you could say. They no longer exist. But—

> Divergent problems cannot be killed; they cannot be solved in the sense of establishing a "correct formula"; they can however, be transcended. A pair of opposites—like freedom and order—are opposites at the level of ordinary life, but they cease to be opposites at the higher level, the really *human* level, where self-awareness plays its proper role. It is then that such forces as love and compassion, understanding and empathy, become available, not simply as occasional impulses (which they are at the lower level) but as regular and reliable resources. Opposites cease to be opposites; they lie down together peacefully like the lion and the lamb in Dürer's famous picture. . . .

Why is this so hard for us to recognize and understand? Because we have become such good calculators, masters of the finiteness of the material world, and therefore expert concealers of the incalculable, the infinite.

> Divergent problems offend the logical mind, which wishes to remove tension by coming down on one side or the other, but they provoke, stimulate, and sharpen the higher human facilities, without which man is nothing but a clever animal. A refusal to accept the divergency of divergent problems causes these higher faculties to remain dormant and to wither away, and when this happens, the "clever animal" is more likely than not to destroy itself.

There may be parallel diagnoses of the ills of our time, but none more accurate. Plato, in his time, said exactly the same thing. There is little to add. How shall we get others to start thinking in this way? By doing it ourselves, but never as would-be copycats. By repeating, but as much as possible in our own words, what men like Plato, Thoreau, and Schumacher have had to say. If we only echo them, little but moonshine will result, thus reinforcing the opposition. Intuition is sunlight by comparison.

REVIEW
IN BEHALF OF PROVINCIALS

THOSE who write have a natural fondness for abstractions—you can say so much with them. One word enables you to talk about *everything* in a particular class. The same applies to action, or movement. Newton's laws are magnificent abstractions, applying to all the bodies there are. It soon becomes evident that without abstractions writers would have to go out of business: What could they say that other people could understand?

Yet poets, among those who write, are critics if not enemies of abstractions. William Carlos Williams, eminent among the poets of a recent generation, made a rule which he tried to follow: "No ideas but in things." William Blake declared that we can hardly be of use to one another save in "minute particulars." And as others have pointed out, loving humanity and kindness to people are not the same thing. The psychological verity involved was clearly put at an early age by William James. In a letter in 1865 or 1866, he wrote home to his family (from South America, where he was assisting Agassiz in an exploration), "No one sees farther into a generalization than his own knowledge of details extends." Which suggests that the more inclusive the statement, the less touch it has with the angular reality of facts. But it must be admitted that abstractions are very useful when they apply to matter, as with Newton's laws. Atoms have no individuality, and so with density and mass. The abstractions comprehend their monotonous reality rather thoroughly—well enough for the purposes of engineers.

But abstractions about mankind get us into difficulties. Only the tautologies are completely safe. If you go the least bit beyond "All men are human," you get into an argument. The same is true of human activities, especially those involving more art than science. In an interview last year (reported in the *Christian Science Monitor*, Oct. 17, 1983), Wendell Berry drew on his experience as a farmer:

> In some of my writings I have pointed out, for example, that it is not possible to farm well by imposing a set of ideas, patterns, and processes that originate elsewhere—in universities or corporations or government bureaus. These things come to the land as abstractions necessarily, for they must be *generally* applicable. Good farmers may need to know them, or know some of them, but they will also need to reject some of them and to change others in response to their own particular farms.
>
> That it is theoretically or mechanically or economically possible to plow a certain field does not mean that the field should be plowed. To have good farming, the field must be allowed to speak back to these other kinds of possibility; the farmer, that is, must think and speak as the field's representative.

Farming, in other words, is more than moving matter around; spirit, too, is involved, which is the farmer's intelligence in relation to the natural (or unnatural) arrangements of a particular time and place. Transcendent coefficients are in operation.

> Good farming, then, is not an industrial process—not the imposition of abstract mechanical processes upon abstract quantities of "resources" or "raw materials." It is an intimate, mutually responsive meeting between a particular human life and a particular place. In farming, the imposition of abstraction results in soil loss, economic failure, and, ultimately, in starvation.
>
> As power and quantities increase within a given situation, abstraction seems to become more necessary; and, it seems to me, as abstraction increases, freedom decreases.
>
> Technical possibilities are never merely technical. In espousing a technical possibility we alter our own definition. To me, this means that if we want to define ourselves as human in the fullest sense, we must limit technical possibility. There must be some things we *can* do that we *won't* do. If we want to be human in the fullest sense, we won't, for instance, adopt technologies that *force* us to lump particular lives together into abstract categories.

Unmentioned here, because it shouldn't be necessary, is the need for common sense. Reading with understanding requires it. For example, one could argue that Mr. Berry doesn't really alter his

definition of himself when he considers the technical possibility that a crowbar will dislodge a boulder in a field he is mowing. This point is adequately covered in the next sentence—some technical possibilities are pure, others are not. Yet the reader always has options. Writing that presents no possibility of options is subhuman in content; but options make possible mistakes. (This was the difference between the Aristotelian and the Platonic theory of truth. Plato held that if you can't help but be right, it doesn't count for much.)

Well, what are the technologies that force us to lump particular lives together into abstract categories? We speak, for example, of "backward peoples." The question brings us to a book published twelve years ago, *Landscape for Humans,* by Peter van Dresser, who died last year. The book is a monument to his memory, and it should be made into something more, since it is entirely devoted to alternatives to the technologies that, as Berry says, should never be adopted, but have been, throughout the region where van Dresser lived and wrote.

His earlier life is of some interest. Born in 1908, he learned architecture and engineering at Cornell. But instead of practicing these skills he wandered about the country for a time. In 1930 he worked as a draftsman in Palm Beach and wrote science fiction for the pulps. The imaginative flights of the latter led him to be a founder of the American Rocket Society, which developed the first operable rocket motor, but he left the association when the military began to dominate this field. For years he worked with Ralph Borsodi in the decentralist movement, and wrote for papers like Albert Jay Nock's *Freeman.* About 1950, he and his wife came to northern New Mexico and bought a place from a Hispanic rancher who was ready to retire. As he relates (quoted in the *New Mexican,* Santa Fe, June 25, 1983):

> "In this valley (at the village of El Rito), we first camped and then built a home. It was my first attempt at a sunheated dwelling. . . . I attempted to develop a subsistence homestead. I found it very hard to survive.
>
> "We ended up opening a little restaurant in the village using a lot of indigenous materials and raising our own food. My theory . . . was to integrate with the life of the village—to learn about it in order to make some contribution to it, not to try to start some kind of intentional community."

Among his contributions were the books, *Home Grown Sun Dwellings* and *Landscape for Humans* (in a later edition called *Development on a Human Scale*). In *Landscape* he writes of the region which is part of the "southern Rocky Mountain province," some 13,000 square miles where adobe villages close to a church made the characteristic form of settlement, the people speaking "a somewhat archaic and provincial Spanish."

> This former Spanish colonial province had been, in fact, for centuries the only area of relatively stable and intensive European settlement in the interior of the North American far West. Of necessity, it had been a province of primarily subsistence-oriented mountain and foothill villages, clustered in the valleys of the southern Rockies. Here the rigors of the semi-desert Southwest were tempered by altitude, and the tributaries of the Rio Grande, upper Pecos, and Canadian rivers could be diverted by simple hydraulic works to irrigate small farms capable of providing the basic necessaries of life. . . .
>
> Santa Fé the tiny capital of this mountain province, had a provincially old-world and Latin character quite unlike any other North American city. The region for which it served as metropolis, although technically a part of the United States since the Treaty of Guadalupe-Hidalgo, was virtually a foreign country whose way of life, however strange and archaic it may have seemed to eastern visitors, had an undeniable vitality and self-sufficiency.

It was for van Dresser an area worth saving, or restoring, and improving with the kind of appropriate or intermediate technology both the land and the people needed. But with the advent of "modern progress" and the accompanying "metropolitanization," especially since World War II, the natural economy and ecological relations have been very nearly destroyed.

What has happened? Driven by the abstraction of "Progress," the wrong technologies have been applied, and neither the "backward" Latin inhabitants nor outraged ecologists have been able to interrupt the mechanization of the region. Van Dresser, however, made himself the voice of that high country, "speaking back" for it on "other kinds of possibility." He says:

> Erodable terrain, fragile vegetative cover, semi-arid climate, sparse water supply—all combine to underscore the idea that man's occupancy and use of this land be handled with particular caution and understanding. In this perspective the possibility of metro-centers on the current pattern, with their insatiable appetites for water and the combustion of fuels, their vast expanses of asphalt accelerating storm runoff and valley flooding, their unmanageable outputs of wastes, looms as a permanent catastrophe for New Mexico. The suburbs and satellites built to satisfy the recreational and retirement needs of such urban aggregations enlarge enormously the scope of their ecologic destructiveness through wholesale bulldozing of access roads and building sites and through depletion of aquifers for unproductively used water. The massive systems of freeways necessary to provide for the commuting habits of their populations further disrupt the hydrology and ecology of the landscape, and lower the productivity of the fertile valleys through which they pass. The great dams built to irrigate and (supposedly) protect from floods the industrial farms set up for their provisioning, unbalance the regimens of entire river basins, and wastewater unconscionably through evaporation, siltation, and the encouragement of weed phreatophytes [long-rooted water-drinkers]. And these technological requirements combine to monopolize available social energy and skills in such a way as to block its effective employment in conservative and regenerative care of the land and the living community we share it with.

The alternative:

> . . . such a regional economy could evolve naturally and satisfyingly from the customary life and livelihood modes here established. The physical matrix of village and pueblo closely associated with irrigated farmlands already embodies the essential principles of spatial arrangement, land-use, and basic logistics The tradition of careful husbandry; of long-term involvement with the affairs of fields, meadows and forests; of family and community management of *arequia* systems, grazing arrangements, crop gathering and storage lead naturally into the evolution of more sophisticated big-urban communities, given any sort of favorable institutional environment.

The book spells out these possibilities in detail.

COMMENTARY
BACK TO ORIGEN

A BOOK that became rare at the moment of publication is *Letters from Tom* (Fort Hill Press, Scarsdale, N.Y.), being letters written between 1961 and 1968 by Father Thomas Merton, monk of Gethsemani (Kentucky), to W. H. Ferry. Merton, Ferry says, had hundreds of correspondents, and "I was one of them." Mr. Ferry thought the letters to him should see the light because they bring a light of their own. This monk "scorned Washington's moral bookkeeping in calculations of 'limited war' and 'first use'." His challenge of the related opinions of the Catholic establishment became so vivid that he was "first censured and then censored." Apparently forbidden for a time to publish books, and articles in magazines and newspapers, Merton, Ferry says,

> suggested that I circulate copies of his unapproved writings to lists he supplied and to others I deemed "sufficiently interested." Thus hundreds of this *samizdat* went out from my office every week or so long as the official ukase remained in effect. Within the confine of cell and hermitage he led an eventful and engaged life.

One of the letters (1962) says:

> Did I tell you that the decision of the higher ups has become final and conclusive? The Peace Book (I mean the one I just wrote) is not to be published. Too controversial, doesn't give a nice image of monk. Monk concerned with peace. Bad image. . . .
>
> Have been going back to Origen and Tertullian, where I belong. What do I find? Preaching non-violence. Christians never kill with the sword, these characters say. They haven't heard that this is a bad image. Father of the Church bad father image. But well, we all know what everybody thinks of Origen and Tertullian (if they have heard of them). Augustine came along and fixed up the image ok. The war of the merciful fought for love, he says. Nice image. Non mutant resistant. You can pour anything you want on that image and it won't change, it is official.
>
> So let the merciful non-resistant mutants resist and travel. Let them pack up our troubles in their feedback and kick off for any place. Our mutants will come home to roost.

Father Thomas Merton was killed in an accident in Bangkok in 1968.

CHILDREN
. . . and Ourselves

PAPER FROM AUSTRALIA

A MAGAZINE suitable for having around the house is *Permaculture,* a journal of forty pages devoted to the work and ideas of Bill Mollison, gardener of Australia and Tasmania. They are, he would say, not his but Nature's ideas, and he claims credit only for having picked them out for the instruction of himself and others—on ways to grow food and assemble the elements of a subsistence home place or community. Naturally, the Mollison approach has much in common with what others are doing along the same lines and from the same instruction. The magazine is valuable because it is filled with short articles, lots of photos and drawings, and several pages of people-and-groups-locating directories. The inside front cover of one issue (February, 1983) has this story titled "The Green Wall of China":

> Planted in one-kilometre-wide strips along China's northwestern frontier is a belt of trees which protects precious farmland from the sands of the Gobi desert when the winter winds blow. Begun after the Communist revolution of 1949, the shelterbelt is creeping towards its ultimate length—6,000 kilometres. A similar belt stretching along the country's southeastern coast breaks the force of the summer typhoons that blow more sand inland. These huge planting projects represent a massive commitment of manpower, but they're only a small part of the People's Republic reforestation and afforestation program, easily the most ambitious in the world. When the country's agriculture program swung into action with the formation of village communes and district production brigades in 1958, treeplanting became a duty for every able-bodied person. Organized planting has raised China's forest cover from less than nine per cent to almost 13 per cent of the country's area, reforesting almost the same area as British Columbia's total productive forestland.
>
> The shelterbelts are an early stage in the struggle to reverse the effects of centuries of careless tree-cutting and natural disaster. (Perhaps no area on earth has seen more deaths from periodic flash flooding than the crowded north Chinese river plains.) The country's overall goal is to put 20 per cent of its land in forests by the end of the century. That means planting trees on 70 million hectares.

It takes 1.609 kilometers to equal a mile, and 70 million hectares would make over 172 million acres (or more than 277 thousand square miles).

Subscription to *Permaculture* should be sent to 37 Goldmith Street, Maryborough, Victoria, Australia 3465, $12.00 for four issues.

Another story in this issue is by Sarah Scholfield, who went as a Permaculture missionary to India, where she found at least nominal attention given by the government to Gandhian ideals and goals. She says:

> A popular concept now is the development of a one-acre technology for the rural poor. This is an attempt to make a family self-sufficient on one acre of land, using storied intercropping, sizal for border, Subabul for firewood, etc. . . . There is also an increasing appreciation for the small farmer and his plight—soil which grows less fertile every year as traditional methods of conservation are abandoned and cow dung is needed for fuel, and a mark-up on his produce (up to 20%) that makes it impossible to survive. The farmer must go through six tiers to reach the consumer: farmer to village agent, village agent to aarati (transporter), aarati to auctioneer, auctioneer to semi-wholesaler, semiwholesaler to retailer, retailer to consumer. Some farmers are abandoning their work as a protest and growing only enough to feed their own families. In the [Permaculture] courses we can share experiences farmers in other countries have had in organizing their own cooperatives.

There is the following on treeplanting in India, by the same writer:

> Severe erosion in the Himalayas and subsequent flooding of major rivers is a great concern. It is here in the mountains that the Chipko movement was born. Sundarlal Bahuguna has made extensive walking tours throughout the sub-Himalayas, speaking to the village women and encouraging their love for the forests around them. Much is said about the forests being ravaged by women for firewood, but the truth is that the timber industry is still by far the greatest offender. Efforts at replanting are mostly sporadic and ineffective, and all replacing the original forest of interdependent species with a monoculture. There is much work here for

Permaculture in designing effective replanting systems. "Chipko" means "to embrace," and Babuguna and others have inspired the women, who now understand how their lives are so dependent on the lives of the trees, to run out from their homes and embrace the trees when the foresters come by with their axes. The first time such a protest was staged, fifty women were killed. Yet the public outrage from this episode was so great that subsequent protests have been completely effective with no casualties. The movement is now spreading to other states, including Kerala where an entire tropical rainforest was saved from destruction. We who are working in the West have much to learn from the Chipko Movement.

A book, *The Chipko Movement*, by Annpam Misha, came out in 1981 and is available from Gandhi Book House, 1, Rajghat Colony, New Delhi 110 002, India.

One more report by Sarah Scholfield:

One of the true highlights of my brief stay was an afternoon on a twenty-acre island in the middle of the Poona River. This island has been farmed with Permaculture methods for forty years. I was Alice in Wonderland strolling through a paradise of storied intercropping with palms, fruit trees, spices, herbs, and vegetables—all using a completely organic no-tillage system. Coconut yields are the highest in the country; seeds have been collected from all over the world, and varieties are growing which are considered impossible in that climate (including apples from Kashmir). The man who guided me through this utopia said that his father, the inspiration behind the project, always told him, "put your money in the mud." The entire family—father and mother, their six sons and one daughter, and all of their grandchildren—still live together and all contribute their energies to this beautiful island. I was somewhat unprepared for my meeting with the seventy-year-old father—a beautiful man with flowing white-blond hair and beard and illuminated presence. We needed no extra light in the evening dusk as he explained the depth of his relationship to his plants. The harmony of this family's relationship both with each other and with their land is a moving testimony to the rewards of working towards a Permanent Culture.

Another writer, Franz Honnef, tells about his 4.9 hectare family farm in New Guinea, begun in 1974, which now has a 5-bedroom family home, 7 poultry sheds (26,000 broilers) fenced into 6 paddocks, 3 bulk feed bins, 2 dams (with fish), well and windmill and town water. Extensive irrigation supplying 54 different varieties of tropical fruit and nut trees including 1,142 macadamia trees, 700 banana trees, 200 pawpaw trees, over 100 various variety guava trees, 70 custard apples, 28 different citrus fruits, 40 Brazil cherry trees, 12 mango trees, 235 tamarilo, 20 avocado trees, 10 coffee plants, over 50 different palm trees, 25 tamarind trees, 40 grape vines, 5 Indian walnuts, 5 jackfruit, 9 Chinese raisins, 9 mulberry trees, 7 bean trees, numerous pea trees, 4 apricot trees, 2 peach trees, 2 Japanese plum trees and olives. Others include roseapples, river cherries, native tamarind, logans, tang nuts, horse radish tree, kiwi vines, various passionfmits, five corners and quite a comprehensive list of other exotic fruit and nut trees.

Honnef's first instructors were the natives of East New Guinea, with whom he spent eleven years living in their villages, making gardens with them. We could list the vegetables he now grows, but the names are all strange. He also says:

I grow turkeys for Christmas on the farm. They are semi-wild, sleeping on the wattle trees and cleaning and fertilizing our land. Other animals include king pigeons, bantam chickens, game fowls, geese, ducks, goats (for milk) and bees for honey.

Our energy is solar for hot water (self-made), wind for pumping water, and firewood (we will never run out).

I grow Indian black maize, barley and oats, all the Fukuoka [no-till] way. It works well. For fresh green vegies we eat many weeds. Every season has its own wild plants.

New Guinea, for would-be migrants who don't remember, is an island in the Malay archipelago, northeast of Australia. It has mountains with glaciers, plenty of rain, and quartzite much valued for making adzes. It also has petroleum, if that really matters. Both Dutch and British have settled there. The native people are Papuans, nearly all horticulturists. Some of them used to be head-hunters and some perhaps still are. Average temperature, 81 degrees.

FRONTIERS

Countercurrents

No word in our language is more ambiguous than "Peace," in present usage, but the slogan of war resisters, *Wars will cease when men refuse to fight them,* has only one meaning. And its truth is unmistakable. While spreading this idea is an uphill struggle, enough young men (and now young women) have made it the basis of personal decision to give rich content to the *WRI Newsletter,* filled with reports of war resistance in many parts of the world. There are also pictures, and the issue of the *Newsletter* for last August printed a photograph of a June street-wide demonstration in Lisbon. Holding outspread hands, Portuguese men and women, some carrying posters, marched in opposition to nuclear weapons and nuclear energy, and demanding adequate provision for conscientious objectors. The Portuguese constitution guarantees the right to conscientious objection but no enabling law has been passed. The caption tells of a later demonstration:

> A nonviolent action by an alliance of pacifists and ecologists disrupted the Portuguese Parliament on 24 June during the presentation of the government's program, according to a report. . . . Five members of the alliance succeeded in penetrating the lax security of the Parliament to enter the deputy's hemisphere; banners were unfurled and one of the women participants presented Prime Minister Mario Soares with a bunch of roses. The action was well covered by the Portuguese press and, although they were arrested, the participants were released after some hours because of the clear nonviolent nature of the action.

The coverage of this event by the Portuguese press may have been good, but no American paper, so far as we know, mentioned the action, and similar demonstrations around the world are often ignored. This is an excellent reason for subscribing to the *WRI Newsletter,* published by the War Resisters International, at 55 Dawes Street, London SE17 1L, Great Britain, at £5 a year.

Members of the WRI "believe that war and confrontation do not solve social, political and economic problems" and declare themselves "determined not to support any kind of war and to strive for the removal of all causes of war."

> The WRI is non-aligned; it condemns militarism and the use of war as a means to an end and works for nonviolent alternatives in the West and East and in Third World countries. . . . The WRI's concern with peace goes beyond nuclear disarmament, to total disarmament by unilateral initiatives and to the elimination of the causes of war and conflict. . . . The WRI believes that nonviolence—as used for example by Gandhi to liberate India, by Martin Luther King Jr. to speed the liberation of black Americans, by workers in the Polish Solidarnosc—is a potent tool for the defense of human freedom and dignity, which has earned the right of serious consideration when facing oppression. The essence of nonviolence is to build trust and remove the causes of conflict before it deteriorates into war. . . .
>
> If you support the WRI's basis and live in a country where there is a WRI section—join it. You are then a member of the WRI.

There are now WRI sections in eighteen countries. The affairs of the organization are administered and promoted at the International office in London—in "a small house crammed to the roof with the work of the WRI." This work is carried on by a tiny staff—"2 full-time workers and 1 part-timer plus such voluntary help frequently given by friends." Of this "small house" it is said:

> *It is the home* of many thousands of individual war resisters housed on cards filed in their respective countries but without the restrictions of frontiers or any indication of the world's political divisions. There are about 20 countries registered—in some countries there are hundreds of contacts and supporters of long standing; in others, such as Thailand, Brazil, Ghana, Mauritania, only one or two.
>
> *It is the "reference home"* of more than 160 peace-related publications in some 12 languages and is a mini-United Nations on peace research, peace education, and disarmament. The shelves are transnational and represent affinity groupings across the world common to all who resist war or are

> involved in nonviolent change; these represent the projects and purpose that unite us—women against militarism, the threat of nuclear energy and weapons, conversion in industry, nonviolence, areas of crisis and conflict, human rights, hunger and oppression and more. . . .
>
> If we could read the Annual Reports of each Section and Associate group and then blend their programmes with our central Report, a significant document of protest and persuasion would emerge, showing clearly that the power of nonviolence is bubbling, simmering and flowing in a strong current towards something more than a "hope for peace."

The reports from areas of which we seldom hear an unprejudiced word are of particular interest. Who in America, for example, knows that three thousand East Germans gathered in Berlin last July to hold a "peace workshop"? In a way they took some chances to do this, as the report reveals.

> A three-hour open-air discussion was held in the afternoon in the style of a "speak freely" Speaker's Corner. Experiences from all over the German Democratic Republic were exchanged on the possibility of a "dialogue with the state." The result was not very encouraging. The state is isolating itself and the organizations under its control from any outside influence. The official Medical Association for the Prevention of Nuclear War, for instance, does not permit any new members. Instead, medical university teachers who in their lectures dare to say that money should be spent on medical equipment rather than on armaments are being dismissed.

Two women in the U.S. Army, after seeking conscientious objector status, were administratively released last June. One of them said: "The entire concept (of a soldier) is contrary to what I have come to believe is the truth about human nature and, most especially, human potential." The other said: "The idea that we must be prepared to annihilate each other in order to live together is a lie I can no longer agree to perpetuate upon my people or myself."

Other stories tell about the hard time Austria's C.O.s are having, and about the Israeli psychiatrist who, obliged to examine soldiers refusing to serve in Lebanon by reason of conscience, himself became a "refusenik." In Argentina, a father who lost his son in the Malvinas has formed a group, Padres Amigos Soldados (Parents and Soldiers), that is campaigning for the abolition of compulsory military service; or, meanwhile, provision for conscientious objection.

Month after month, these reports of ferment and rejection of war are published in the *WRI Newsletter*. People who find the trends of national action discouraging might be heartened by this news of courageous individuals, almost everywhere, who are risking much, sometimes their lives, in order to move in the opposite direction.