

Rishi Valley and Human Ingenuity

I FELT AS though I were back on the road in West Africa, with its monotonous and intimidating greenery and red laterite underfoot, traversed by ant armies. The hollow and high-pitched bird calls were relaxing after the nighttime taxi ride. Butterflies completed the picture. There were fifty-five varieties of them here, I would later be told by Mr. S. Rangaswami, a local naturalist. The difference, though, between Rishi Valley and West Africa was total: Every tree in sight, in what looked much like a jungle, had been planted by a man's or a child's hand as part of a deliberate act of regeneration.

A few decades back, this valley had been deforested and became secondary growth scrub land, where farmers carved out a marginal existence in an area of chronic drought. The regeneration of the landscape had been achieved without the advice of a single Western aid expert, and with almost no outside funds. Indeed, Rishi Valley was a secret that the West knew very little about.

Friends at the University of Toronto had suggested I visit Rishi Valley. They said Rishi Valley was a place where the local inhabitants had found solutions to such ills as overpopulation and environmental degrada-

tion. No doubt, there are places in Africa I could have visited that would have given me as much hope as Rishi Valley, just as there are places in India that are as depressing as Sierra Leone. Rishi Valley may be less an Indian success story than it is a human success story. Rishi Valley shows that there is hope, that we as a species will not necessarily destroy ourselves. But it also taught me that if these hopes are to be realized, then solutions must emerge locally. Hope and solutions cannot be imported by big government or from international bureaucracies thousands of miles away.

THE NATURALIST, Mr. Rangaswami, binoculars dangling from his graceful, six-foot-plus frame, ambled out of the woods and began talking, sweeping me along with his commentary for a brief forty-five minutes: It was the overture to my valley experience.

"Birds are the litmus test," Mr. Rangaswami declared. "The return of the Yellowthroated Bulbul to Rishi Valley constitutes the official proof of ecological renewal here. Before we had heard that warble for the first time some years back, we just couldn't be sure of anything." Mr. Rangaswami led me through a rich undergrowth of vines, ferns, red sanders, Sandalwood, custard apples, tamarinds, acacias, and lemon grass. "There has been a 300 percent biomass increase. Notice the red sanders. They are drought-resistant and grow absolutely vertically. We chose them because their roots anchor the soil without interfering with the other greenery. But Mr. Naidu will tell you all about that. He is the real worker of miracles, the real *presence* in the valley. You will meet him, I'm sure. Quiet! Hear that melodious cackle? That is the Pied Crested Cuckoo. We'll soon be entering Bulbul territory"

Mr. Rangaswami went on about solar panels, organic vegetable gardens, and replacing butane with the gas released by cow dung, while at the same time pointing out parakeets and a group of owlets. With his winglike arms constantly in motion, his plume of iron-gray hair, and lilting Indian voice, he seemed to be one of the "150 species of returned migratory birds" he so loved. Especially as he had never really introduced himself but, rather, had swept down into my presence. Suddenly, he stopped his lecture and put his finger over his lips, admonishing me to keep silent-as though I were the one who had been talking. "No, that's only a white egret," he said, somewhat disappointed. Then, hearing a high-pitched

note through the bushes, he extended his arms against the blue ink-blot sky and dark monsoon clouds and exclaimed, "Ah, now the Pied Kingfisher has come!"

MR. RANGASWAMI, IN his seventies, had worked as an accountant and as a manager of a factory in Madras before he discovered his true vocation in Rishi Valley, where he took up bird-watching and became the "honorary chief warden" of the nature reserve. Eccentric he may be, but Mr. Rangaswami is not a super-romantic. Nor is he independently wealthy. He is part of a movement that believes ecological renewal is essential to cultural renewal.

The story begins in 1895 in the village of Madanapalle, a few miles from Rishi Valley, with the birth of Jiddu Krishnamurti. Krishnamurti, who died in 1986, was a modern philosopher-not a guru or a yogi. He created no hierarchies and collected no money. He discouraged disciples. "If you are very clear, if you are inwardly a light unto yourself, you will never follow anyone," he told admirers. Aldous Huxley, hearing Krishnamurti speak, said it was "amongst the most impressive things I have listen to-it was like listening to the discourse of the Buddha." Krishnamurti's beliefs are hard to pin down. He eschewed utopianism, and scoffed at a return to pastoral beatitude. He felt that such attitudes can be sustained only by closing one's eyes to the reality of "cruelty, competition, or pain that is so much a part of life on Earth." He was a skeptic who acknowledged a banal truth: "The Earth is ours, yours and mine, and we have to live on it together; we have to cherish it and grow things on its soil." Krishnamurti foresaw a historical phase in which people would identify with something like what environmental security expert Daniel Deudney calls "green culture" or "earth nationalism," which may emerge in tandem with a switch from "low" to "high" politics: the global management of many environmental problems by the mid-twenty-first century. Deudney describes this long-range trend as "the emergence of world domestic politics." Krishnamurti's ideas may also be thought of as a precursor to "Gaia" theory, named after an ancient Greek earth goddess, which sees the Earth as a living system in which living and nonliving forms continuously interact. Jessica Mathews says this about Gaia:

In the last few years Gaia has moved from fringe to mainstream science, opening up new areas of research and changing the way peo-

pie think-including those who think parts of the theory are wrong. The traditional view of life as something that passively adapts itself to an externally imposed physical environment is giving way to recognition that the living and nonliving realms are intricately entangled.... Ultimately, Gaia will, I think, demolish the prevailing view-which is deeply embedded in economics, law and political science-that human society exists largely separate from nature.

In the early 1930s, Krishnamurti and his friends established an elite boarding school on a completely barren patch of pebbled earth covering zoo acres, near his birthplace at the foot of Rishi Konda, an ancient rock where, two thousand years ago, rishis, or monks, went to do penance. This went against the prevailing Indian trend of locating boarding schools in picturesque hill stations. Because the Rishi Valley school attracted the sons and daughters of wealthy Brahmin families from throughout the linguistically diverse subcontinent, instruction was in English. Though this was not unique, the school's approach to education, and its evolving relationship with the surrounding villages, certainly was.

Indian education has often been criticized for being "rootless" and "abstract," for producing brainy prodigies disconnected from their own environment, exactly what one would expect to emerge from a caste system. Indians, thus, despite great achievements in the theoretical sciences, have often lacked a similarly strong engineering tradition. The Rishi Valley school sought to fill this gap by making environmental conservation a basic part of the curriculum and by forcing these wealthy students to work with their hands alongside local villagers. "Culture is renewed when people from the city, with intellectual resources, settle in the villages," explained Geetha Iyer, a teacher at Rishi Valley- That, of course, is the lesson that the shah of Iran and other third world despots never learned: that the village, not the city, is the key to modernity; that a nation cannot be modern while its villages are still medieval.

Geetha, a lithe and diminutive woman, with pink-framed glasses and eyes full of curiosity, drove me miles into the countryside, where two landscapes converged. One resembled a skull-and-bones vision of limestone hills, sculpted by wind and rain over millennia and topped by huge granite boulders, stripped of tree cover and topsoil from years of overgrazing and cutting trees for firewood. The other landscape was the regenerated forest of Rishi Valley, where, interspersed between the trees, were splashes

of bougainvillea, hibiscus, marigolds, wild roses, and jasmine, with a bird symphony rising above it. The difference that a hundred yards made here was more palpable than many of the man-made borders I had crossed. In the reforested area, the breezes, rinsed clean of dust, and sunlight, reported into many colors by the canopy of leaves, gave a sense of well-being. I wondered if people who inhabit a regenerated landscape like this become less bellicose.

Geetha explained: "We say to the villagers, give us your worst land, your very worst. Not to own or keep, but as place for you and our students to work on." Her blue cotton sari trailing in the breeze, she led me to such a terrain.

Like a patch of blotched skin in the process of healing, to the nonexpert eye this piece of land didn't look like much. It was just ravine and hillside: not barren, not green, rather somewhere between. The middle represented the progress made by Geetha's students. "We select plants and trees that will yield good mulch, as well as anchor the soil." Noteworthy among these is the custard apple: a short, fruit-bearing tree of no particular beauty, yet a name I heard repeated like a mantra throughout Rishi Valley. The custard apple matures in just four years. It sinks deep and wide roots that anchor eroded soil. It is a hardy tree, requiring little rain and bearing leaves that goats won't eat. And in its shade other plant species emerge naturally. Mr. Rangaswami, the bird watcher, adored the custard apple.

The Rishi Valley schoolchildren plant twenty thousand trees and shrubs each year and distribute one hundred thousand seedlings throughout the valley. In his chronicle of the experience, *Birds of Rishi Valley: And Renewal of Their Habitat*, Mr. Rangaswami and his co-author, S. Sridhar, write:

Armed with digging sticks and bags full of seeds, younger children climbed up a path to plant seeds into the hard soil. Older students dug pits for saplings. Large drums of water were transported by tractor from the well to the foothills. From there, the children filled buckets with water and relayed them up through a long line snaking over the hillside....

Nurseries with thousands of trees were developed. Students and workers joined hands in filling polythene bags with earth and watering the newly sown seeds until they were ready to be transplanted.

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Geetha pointed out a series of "check dams," miniature dams, or breaks, fashioned from the soil itself, not much bigger than what a child would construct on a beach with wet sand. By stopping, or at least slowing, the flow of rivulets after a rain, these check dams help prevent erosion, and form deposits of nutrient-rich silt. "The silt is very fertile. It has much humus-matter. We transport the silt to dry areas that need regeneration," Geetha explained. Rishi Valley, I was beginning to learn, was like one big grafting operation, where healthy soil created in one area was shifted to another to spur the regenerative process. The students even produce their own organic compost by collecting all the school's garbage in cement-lined pits, where it is devoured by earth worms.

Grander than the check dams were the "contour bunds": sloping stone walls about six feet high and several hundred yards long, also constructed by the students in cooperation with the villagers, that channel the flood waters toward "percolation tanks." Percolation tanks, like the custard apples, was another name recited in a reverential tone. They were the invention of Mr. Naidu, the estate manager at Rishi Valley, whom Mr. Rangaswami had called the "real worker of miracles" here.

When I asked Geetha if these percolation tanks were for irrigation, she said, "Definitely not. We don't irrigate in Rishi Valley and we don't use chemical fertilizers. We replenish the underground water table and the soil."

The problem with India's Green Revolution, which yielded a manifold increase in food production, Geetha and others explained, is that it has dangerously depleted India's environmental base through overirrigation and overuse of artificial fertilizers. The custard apples, check dams, contour bunds, and percolation tanks are all elements in reversing that process. "Basically," Geetha said, "people have to like their place deep enough-that is, consciously enough-to work to preserve it."

If this were all, then Rishi Valley would constitute little more than an environmental theme park for wealthy children. But there is more.

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ON THE Drive back to the campus Geetha and I passed through several villages: tight clusters of thatched-roof huts, bony cattle, and women, like petite mahogany sculptures, in flashy purple, red, and green saris drawing buckets of water from wells. But that eaten-from-within quality-the flies, the diseased gums, the smells-that I had always associated with India

seemed missing. These villages were an air-brushed travel-magazine India. It took me a few days to learn why.

RISHI VALLEY is like a New England boarding school removed to Appalachia so that the students can work with the rural poor, like Peace Corps or Vista volunteers. Though outwardly its approach appears to be a model of Western liberal thought, the Rishi Valley staff-in Krishnamurti's own Indian way'-has internalized the conservative dictum that wealth creation is more a matter of culture than of politics.' And that while people are certainly born equal, environmental and human influences to which they are subjected from birth make them profoundly unequal by the time they reach school age.

Besides the English-speaking boarding school, there is a day school for one hundred village children where the language of instruction is Telugu, the local Dravidian language. The day school is the hub of an expanding network of "satellite" schools for the surrounding villages. I visited one of these village schools and was amazed.

It was a simple, one-room schoolhouse of lime-washed mudbrick with a corrugated-iron roof, surrounded by a garden of marigold and hibiscus. Inside the schoolhouse I saw four groups, of about five children each, sitting in circles on the floor and quietly working with instructional cards and small chalkboards. I heard no shouting and saw no bored or sleepy faces, just low, steady whispering as children tutored each other with minimal help from the teacher, who appeared almost superfluous. Paper cutouts of flowers and birds dangled from the ceiling a few feet above the children's heads. Shelves holding a neat arrangement of students' files and craft boxes were set against one wall. Against another wall were colorful charts that listed the number of people, plants, and animals in the village, each broken down into various categories. From the charts, I learned that this particular village has 271 inhabitants, of whom 106 are women, 97 men, and 68 children. An exhibition of the children's paintings hung from the third wall. Though only a year old, this school was already

'Krishnamurti was raised and greatly influenced by a British social reformer, Annie Besant, making his philosophy, perhaps, partly a Western product.

In *The New Republic* of July 7, 1986, Daniel Patrick Moynihan writes: "The central conservative truth is that it is culture, not politics, that determines the success of a society. The central liberal truth is that politics can change a culture and save it from itself."

nore than a but-it was a "home," with a deeply personal touch both in the garden and in the classroom, which, with its wall charts, reflected an accumulation of knowledge and experience. I could not recall another classroom that seemed so calm and conducive to self-motivation. It was especially impressive when one considered the poverty of the students' background and the wide age-span within the class, in which children of various grade levels were working together.

I spent an hour in the classroom just watching the children. From time to time, for a minute or two they stared at me-an unfamiliar and foreign face that had sparked their curiosity. But then they returned to work. Not one child had an expression that seemed sullen or lost, the way many children appear in schools in poor neighborhoods in the United States. I observed closely from outside the door: Not one child was pestering the other. By American standards, the class was an anomaly-a room full of underprivileged kids of varying ages who were all well behaved. Because discipline was not even an issue, let alone a problem, everyone could concentrate on learning.

That classroom was not an accident. I was to visit several village schools in the area during various times of the day. The atmosphere was always the same. Just as the day school on the Rishi Valley campus was the hub for this satellite school network, each satellite school was the hub for a village, where courses in adult literacy, land reclamation, reforestation, hygiene, beekeeping, etc., are conducted in the evenings, and where students work with their parents to tend the school garden and plant nursery and to build contour bunds and check dams to stop erosion.

The oldest of these satellite schools is in Egavaboyapalle, a formerly deforested village of 250 families, all from a caste that has a reputation for "shiftlessness" and "highway robbery" Since 1986, when this school opened, literacy in Egavaboyapalle has climbed from near zero to 70 percent. The incidence of disease has dropped dramatically. The residents have adorned their thatched-roof huts with bougainvillea and hibiscus gardens. They have donated a gold clock, among other items, to the school, which is never locked at night. Trust among the villagers is growing. The student dropout rate here and in nearby villages has been falling to almost zero. Ninety-five percent of the students pass the entrance examination for advancement to upper grade levels.

I sat on the floor of a small office on the Rishi Valley campus, sipping milky tea with the young husband-and-wife team responsible for this

achievement. Y A. Padmanabha Rao, with his glasses, thick black hair, and mustache, resembles a younger clone of the Iraqi diplomatic hatchet-mar Tariq Aziz. Whereas Aziz never fails to be nonsensical and insincere, Rao's intellect arises from homespun common sense. He and his stylish wife Rama, dressed in a red-and-white sari, had moved to Rishi Valley from the city of Hyderabad, a few hours' drive to the north, to test out their revolutionary ideas about education outside the straitjacket of the Indian government school system. I was scribbling notes too fast to record who sat what. Here is a summary in the couple's own words of how the Rao approach the problem of underachieving children from culturally impoverished backgrounds.

"Curriculum studies are increasingly abstract. Textbooks with pictures of airplanes and even cars aren't related to the daily experience of these kids. Textbooks the world over, let's admit, are boring anyway. Only bright kids with stable home environments and parental encouragement do well with textbooks. Moreover, the idea that a child from a broker and/or functionally illiterate home, without the requisite privacy, quiet and electric lighting, will succeed at homework is absurd. To give such children homework is to program them for failure. And forget about good teachers. Most good teachers in India will use every stratagem to avoid teaching job in a poor district. Those who get stuck in a poor district [will be](#) forever glancing at their watches, ready to run out of the classroom and catch the bus back to the city every day at noon. Nor, as a rule, should you expect good teachers to emerge locally. More often than not, local teachers will simply pass on their incompetence and prejudices to the students. Even if you find a good teacher in a poor area, he or she will be unable to deal with thirty youngsters with learning problems."

The Raos, thus, reinvented what a school is. A school need not be a classroom and a teacher. Nor is it a lecture by one big person to thirty little people, whereby teacher and textbook perform as if they were magicians and everybody else sits in rows and listens. A school is not about rote learning or memorizing. Oral cultures, the Raos asserted, already do too much of that. Only when children are taught to categorize and to analyze, rather than merely to memorize, can they achieve anything in the modern world. Intercommunal and tribal hatreds, the Raos explained, arise from too much faulty oral memory and too little self-motivated analysis.

According to the Raos, the ideal school in the developing world at the turn of the twenty-first century must be cheap, portable, easily replicable,

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and able to teach children to think as if they had been brought up in a literate home. It must also inculcate, "deep in the learning process," the values of family planning, concern for the physical environmental, and tolerance for other cultures. And all this can, literally, "fit in a box."

The Raos' "School in a Box" has spread beyond the fifteen satellite schools operated by Rishi Valley to two hundred more schools across southeastern India, where government-run education systems are breaking down and inhabitants are desperate for alternatives.

The "box" itself consists of five hundred illustrated instructional cards in mathematics, Telugu language, science, health, and environmental studies-and a manual for the teacher, who, for the most part, is a "facilitator," since the children end up teaching themselves.

The children start by playing with rubber circles and semicircles, also included in the box, which are similar to the shapes of the forty-five letters in the Telugu alphabet. ; Then they move on to rubber letters, dividing them up into eight categories, according to how difficult they are to write and to pronounce. Following that, the children use game cards, where ; tones are placed atop the correct letter, pronounced out loud by the teacher. The next set of cards is for stenciling in the letters on paper. "The idea," explained Mrs. Rao, "is to begin by actually touching and feeling the rubber letters, and only afterward progress to writing them. Memory is not really required. You learn unconsciously by doing and playing more than by remembering."

There are also picture cards, in which the child writes the word for the picture, followed by puzzle cards, review cards, and so on. Children go on to the next level of cards only after completing the one before it. "The children are in the driver's seat, motivating themselves in groups," Mr. Rao said.

Story cards supply simplified versions of Indian epics. There are also stories modeled on Indian epics that promote ethnic harmony, sexual equality, and love of the environment. Children then write their own stories, which they take home to their parents, who must then learn to read in order to know what their children have written. This is what provides the incentive for the adult-literacy programs. "We use only what their own children have written in teaching the adults how to read," Mr. Rao

The rubber is the kind used for shoe soles; the rough edge indicates which side is down.

explained. "This way you don't have a middle-aged peasant saying, 'What use is reading to me?' "

Yet another card series is used to teach measurement. "But not abstract measurement," Mr. Rao cautions, "such as one hundred centimeters equals one meter. We teach real measurement, such as your nose is so many centimeters long. And we teach time with an hourglass, so that students learn just how long an hour or a half hour is. The concept of time is urban. Villagers never learn it. That is why everyone is often late in India and in Africa. An urban idea of time must be instilled at an early age if a society is to produce material wealth."

The neat and well-organized classrooms that I saw were no accident. "The classroom," Mrs. Rao told me, "must be an extension of the ideal home: A functional household is an orderly one. The children must make activity files for themselves. The instructional cards implant the notion of categories and subcategories for everything. We make the children study their own village. They make statistical charts on the number of men, the number of women, the number of people who can read, the number who can't, the length of people's noses.... In short, the children learn to constantly compare. Thus, they develop objectivity, by finding out things for themselves, through research." To this end, the school organizes village fairs, where the children staff stalls, at which people get weighed and measured and guess the weight of that rock or the length of that leaf. The children then make written graphs of the results.

Just as the classroom is an extension of the ideal home, the garden outside is an extension of the classroom. Each satellite school has a flower, fruit, and vegetable nursery, which the students and their parents are responsible for. Like the Rishi Valley fruit fields whose incomes help subsidize the campus, the nurseries generate income so that each school is nearly self-sustaining. More important than the income-and the charts the children must maintain on plant growth-is the development of an aesthetic instinct. "The planting of bougainvillea in and around the school," Mrs. Rao said, "teaches the children to appreciate beauty. People who appreciate beauty are less likely to be violent."

WATCHING THE CHILDREN quietly go about their lessons amid the highly organized clutter of the schoolhouse, and listening to the Raos talk to the "teacher/facilitator"-a teenage girl in a red sari-it all seemed too

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impressive to be merely the result of an innovative learning technique. It occurred to me that South Asians just might enjoy cultural advantages that sub-Saharan Africans lack. Illiteracy here seems qualitatively different from illiteracy in Africa. The Raos pointed out that the oral stories and traditions that villagers in south India know are based on written epics that have been handed down in detail in Dravidian languages and scripts thousands of years old. Telugu, based on Sanskrit, has a larger alphabet than English. Illiterate villagers in Rishi Valley can tap into a well-developed, literate cultural environment, whereas in much of sub-Saharan Africa, local languages have been written down only in the last century or so.

The Indian population growth rate of under 2 percent is lower than that of practically every state in mainland sub-Saharan Africa. In nearby Kerala, in southwestern India, from where many Rishi Valley faculty come, the growth rate is lower still, and female literacy is an astounding 86 percent. Indians, like the Lebanese and Syrians, went to sub-Saharan Africa a century ago with little more than the shirts on their backs, and went on to form the middle class in a number of African cities. This couldn't have happened merely by accident, or through "exploitation," since even exploitation requires ingenuity. The Raos' "School in a Box" is, despite differences between South Asia and Africa, also applicable to Africa and other places where children don't learn as well as they might. Whether it can help close the ever-widening gap in material wealth between Africa and the Indian subcontinent, however, is another matter.

MR. SHI NAIDU, the Rishi Valley estate manager of whom I had been hearing so much, did not greet me with a merry smile and explosion of chatter like the others. He was not an intellectual who had moved to Rishi Valley from the city. Born in a nearby village, Mr. Naidu was a shy, monosyllabic man, physically husky, with thinning gray hair, who worked with his hands. He was different from the other adults at Rishi Valley in the same way that an Israeli kibbutz farmer is different from urban Jews from Tel Aviv, or from New York. And that, I surmised, partly accounted for the awe in which the others held him.

"You are interested in farming?" he bluntly inquired.

"Yes," I replied.

"Follow me."

Mr. Naidu led me to an expanse of mango fields. "The whole valley was dry, so I went to Madras to find out about the cost of a drip irrigation system. It was too expensive. So I took these empty food tins, stuffed their opened ends with cotton, and filled them with water. Then I planted the cotton drums around the mango trees. Every four days I went around with a donkey cart to refill them with water and change the cotton. It worked. We saved a lot of money. Who needs a high-tech operation? There is too much technology in agriculture, and too many artificial fertilizers that are destroying our soil for the future. At Rishi Valley, I use only natural organic fertilizers like neem cake [a compost of decayed leaves from the neem tree]."

Mr. Naidu repeated what Geetha had said, that India's much-trumpeted Green Revolution has been achieved by overworking its croplands and depleting its watershed through overirrigation. (Norman Myers, a British development consultant, worries that Indians have "been feeding themselves today by borrowing against their children's food sources.")

We continued walking. Seeing me scribble in my notebook, Mr. Naidu warmed up a bit. He told me about the different kinds of soils and ferns. He led me to a rich undergrowth of ferns and said, "I want all of southern India to look like this."

I asked him about the percolation tanks.

"I got the idea watching the schoolboys take showers in the open air. All the shower water was running out into the field, wasted. So I had the students dig a trench around the shower area, to collect the runoff. With this waste water I grew beans and bananas. The percolation tanks are just bigger versions of the shower ditch."

Mr. Naidu explained how he had supervised the construction of contour bunds and check dams, which channeled water from the seasonal monsoon rains into a football-field-sized percolation tank: a ditchlike building foundation that took a year to fill up. Meanwhile, the flood catchment area formed by the long contour bunds was converted into a vast and productive rice paddy. "We got some money for the project from the local government [of the Indian state of Andhra Pradesh]. The government bureaucrats were impossible to deal with, though. I will never go near the government again."

"What about the federal authorities in New Delhi?" I asked.

"They're even worse."

Mr. Naidu directed the Rishi Valley students and local villagers in the arduous task of transporting the enriched soil from around the percolation tank to drier parts of the valley in order to grow peanuts. "It takes twelve to fifteen inches of enriched tank silt to regenerate alkaline soil. It is a permanent and natural solution." He went on:

"We use the percolation tanks to replenish the underground water table, not for irrigation. Now it takes five or ten minutes of pumping to extract water from underground, instead of twenty minutes in the days before the percolation tanks. The water table in the valley has risen from forty feet below ground to as high as ten feet in places." Mr. Naidu kept repeating that "there is too much irrigation in the developing world," causing salinity, waterlogging, and depletion of underground water tables. Rising populations, he believed, will less and less be sustained by over-tilled, overfertilized, and overirrigated earth.

Rishi Valley under Mr. Naidu's direction is a big organic farm carrying out a "post-Green Revolution" revolution, by reinvesting money raised from the sale of its own produce. Indians in Rishi Valley have rediscovered, on their own, a two-thousand-year-old technique of channeling rainwater to make a dry area green, pioneered by the Nabateans, who lived in present-day Jordan around the time of Jesus and who built the famed "rose red" city of Petra. Mr. Naidu told me he had never heard of the Nabateans. He said:

"A society has to self-discover things, even if it is already known to outsiders. That way it will stick through experience and become ingrained in the local mentality."

Mr. Naidu and I climbed atop one of the contour bunds to survey the rich, green panorama of cultivation. "I haven't told you about my past, have I?" he said, tilting his head back and forth in the way Indians do as a means of emphasis, and punctuation. He told me how he and his family had lived in a large house on campus that he had, over the years, lovingly adorned with bougainvillea and hibiscus trellises, and with sweet jasmine. "But I can't bring myself to spend the nights there anymore. I sleep at my daughter's house in a nearby town. You see, I had three children," he began, as I noticed a mounting sadness in his voice.

"All of my children went to the Rishi Valley school. *My* daughter married a local lawyer. *My* eldest son works for IBM in Bahrain. *My* middle son was a champion of cricket and other sports. He took after me: I taught sports at Rishi Valley before I became interested in agriculture. *My*

middle son was elected president of the YMCA in Madras. He was a real star. One day he went swimming and accidentally dived into a rainwater pit. He was sucked down through the silt and drowned. My wife later died of a heart attack. This is why, I think, I do what I do. To forget everything. I have lost myself in planting and regeneration. To give something back to Mother Earth."

Mr. Naidu, since the death of his son, had become a patriot of a future age: an age of Gaia. His success is being helped along by a propitious cultural context that includes the philosophy of Krishnamurti and the innovative teaching methods of the Raos.

MR. NAIDU AND I ended our walk under a giant three-hundred-year-old banyan tree: the same tree, it is said, that inspired Krishnamurti. This tree has many aerial roots that grow downward from wide and sagging branches until they reach the ground and meld with the soil, thus forming natural pillars that support the branches and allow them to die peacefully without crashing to the ground. Some of these aerial roots grow into trees of their own. Looking at the aerial roots and branches of this great tree, I thought of old political and social systems dying and new ones being born, all in a gradual and nonviolent fashion. "But some of the branches crash," Mr. Naidu cautioned, "since not all of the aerial roots find a foothold in the ground to support what is overhead. That is why I have erected these granite supports: They keep the branches from breaking." I wondered if places like India and Africa would produce enough Mr. Naidus to support them against the crashes and cataclysms ahead, in the transition from old political forms to new ones.