The One – Straw Revolution

Look at this Grain

I believe that a revolution can begin from this one strand of straw. Seen at a glance, this rice straw may appear light and insignificant. Hardly anyone would believe that it could start a revolution. But I have come to realize the weight and power of this straw. For me, this revolution is very real.

Take a look at these fields of rye and barley. This ripening grain will yield about 22 bushels (1,300 pounds) per quarter acre. I believe this matches the top yields in Ehime Prefecture. And if this equals the best yield in Ehime Prefecture, it could easily equal the top harvest in the whole country since this is one of the prime agricultural areas in Japan. And yet these fields have not been plowed for twenty-five years.

To plant, I simply broadcast rye and barley seed on separate fields in the fall, while the rice is still standing. A few weeks later I harvest the rice and spread the rice straw back over the fields.

It is the same for the rice seeding. This winter grain will be cut around the 20th of May. About two weeks before the crop has fully matured, I broadcast rice seed over the rye and barley. After the winter grain has been harvested and the grains threshed, I spread the rye and barley straw over the field.

I suppose that using the same method to plant rice and winter grain is unique to this kind of farming. But there is an easier way. As we walk over to the next field, let me point out that the rice there was sown last fall at the same time as the winter grain. The whole year's planting was finished in that field by New Year's Day.

You might also notice that white clover and weeds are growing in these fields. Clover seed was sown among the rice plants in early October, shortly before the rye and barley. I do not worry about sowing the weeds-they reseed themselves quite easily.

So the order of planting in this field is like this: in early October clover is broadcast among the rice; winter grain then follows in the middle of the month.

“And yet these fields have not been plowed for twenty-five years”. In early November, the rice is harvested, and then the next year's rice seed is sown and' straw laid across the field. The rye and barley you see in front of you were grown this way. ,

In caring for a quarter-acre field, one or two people can do all the work of growing rice and winter grain in a matter of a few days. It seems unlikely that there could be a simpler way of raising grain.

This method completely contradicts modern agricultural techniques. It throws scientific knowledge and traditional farming know-how right out the window. With this kind of farming, which uses no machines, no prepared fertilizer and no chemicals, it is possible to attain a harvest equal to or greater than that of the average Japanese farm. The proof is ripening right before your eyes.

Nothing at All

Recently people have been asking me why I started farming this way so many years ago. Until now I have never discussed this with anyone. You could say there was no way to talk about it. It was simply-how would you say it-a shock, a flash, one small experience that was the starting point.

That realization completely changed my life. It is nothing you can really talk about, but it might be put something like this: "Humanity knows nothing at all. There is no intrinsic value in anything, and every action is a futile, meaningless effort." This may seem preposterous, but if you put it into words, that is the only way to describe it.

This "thought" developed suddenly in my head when I was still quite young. I did not know if this insight, that all human understanding and effort are of no account, was valid or not, but if I examined these thoughts and tried to banish them, I could come up with nothing within myself to contradict them. Only the certain belief that this was so burned within me.

It is generally thought that there is nothing more splendid than human intelligence, that human beings are creatures of special value, and that their creations and accomplishments as mirrored in culture and history are wondrous to behold. That is the common belief, anyway. Since what I was thinking was a denial of this, I was unable to communicate my view to anyone. Eventually I decided to give my thoughts a form, to put them into practice, and so to determine whether my understanding was right or wrong. To spend my life farming, growing rice and winter grain-this was the course upon, which I settled.

And what was this experience that changed my life?

Forty years ago, when I was twenty-five years old, I was working for the Yokohama Customs Bureau in the Plant Inspection Division. My main job was to inspect incoming and outgoing plants for disease carrying insects. I was fortunate to have a good deal of free time, which I spent in the research laboratory, carrying out investigations in my specialty of plant pathology. This laboratory was located next to Yamate Park and looked down on Yokohama harbor from the bluff. Directly in front of the building was the Catholic Church, and to the east was the Ferris Girls' School. It was very quiet, all in all the perfect environment for carrying on research.

The laboratory pathology researcher was Eiichi Kurosawa. I had studied plant pathology under Makoto Okera, a teacher at Gifu Agricultural High School, and received guidance from Suehiko Igata of the Okayama Prefecture Agricultural Testing Center.

I was very fortunate to be a student of Professor Kurosawa. Although he remained largely unknown in the academic world, he is the man who isolated and raised in culture the fungus which causes bakanae disease in rice. He became the first to extract the plant growth hormone, gibberellin, from the fungus culture. This hormone, when a small amount is absorbed by the young rice plants, has the peculiar effect of causing the plant to grow abnormally tall. When given in excess, however, it brings about the opposite reaction, causing the plant's growth to be retarded. No one took much notice of this discovery

in Japan, but overseas it became a topic of active research. Soon thereafter, an American made use of gibberellin in developing the seedless grape.

I regarded Kurosawa-san [san is a formal title of address in Japanese used for both men and women.] as my own father, and with his guidance, built a dissection microscope and devoted myself to research on decay-causing resin diseases in the trunk, branches and fruit of American and Japanese citrus trees. Looking through the microscope, I observed fungus cultures, crossbred various fungi and created new disease causing varieties. I was fascinated with my work. Since the job required deep, sustained concentration, there were times when I actually fell unconscious while working in the lab.

This was also a time of youthful high spirits and I did not spend all of my time shut up in the research room. The place was the port city of Yokohama, no better spot to fool around and have a good time. It was during that time that the following episode occurred. Intent, and with camera in hand, I was strolling by the wharf and caught sight of a beautiful woman. Thinking that she would make a great subject for a photograph, I asked her to pose for me. I helped her onto the deck of the foreign ship anchored there, and asked her to look this way and that and took several pictures. She asked me to send her copies when the photos were ready. When I asked where to send them, she just said, "To Ofuna," and left without mentioning her name.

After I had developed the film, I showed the prints to a friend and asked if he recognized her. He gasped and said, "That's Mieko Takamine, the famous movie star!" Right away, I sent ten enlarged prints to her in Ofuna City. Before long, the prints, autographed, were returned in the mail. There was one missing, however. Thinking about this later, I realized that it was the close-up profile shot I had taken; it probably showed some wrinkles in her face. I was delighted and felt I had caught a glimpse into the feminine psyche. '

At other times, clumsy and awkward though I was, I frequented a dance hall in the Nankingai area. One time I caught sight there of the popular singer, Noriko Awaya, and asked her to dance. I can never forget the feeling of that dance, because I was so overwhelmed by her huge body that I could not even get my arm around her waist.

In any event, I was a very busy, very fortunate young man, spending my days in amazement at the world of nature revealed through the eyepiece of the microscope, struck by how similar this minute world was to the great world of the infinite universe. In the evening, either in or out of love, I played around and enjoyed myself. I believe it was this aimless life, coupled with fatigue from overwork, that finally led to fainting spells in the research room. The consequence of all this was that I contracted acute pneumonia and was placed in the pneumothorax treatment room on the top floor of the Police Hospital.

It was winter and through a broken window the wind blew swirls of snow around the room. It was warm beneath the covers, but my face was like ice. The nurse would check my temperature and be gone in an instant.

As it was a private room, people hardly ever looked in. I felt I had been put out in the bitter cold, and suddenly plunged into a world of solitude and loneliness. I found myself face to face with the fear of death. As I think about it now, it seems a useless fear, but at the time, I took it seriously.

I was finally released from the hospital, but I could not pull myself out of my depression. In what had I placed my confidence until then? I had been unconcerned and content, but what was the nature of that complacency? I was in an agony of doubt about the nature of life and death. I could not sleep, could not apply myself to my work. In nightly wanderings above the bluff and beside the harbor, I could find no relief.

One night as I wandered, I collapsed in exhaustion on a hill overlooking the harbor, finally dozing against the trunk of a large tree. I lay there, neither asleep nor awake, until dawn. I can still remember that it was the morning of the-15th of May. In a daze I watched the harbor grow light, seeing the sunrise and yet somehow not- seeing it. As the breeze blew up from below the bluff; the morning mist suddenly disappeared. Just at that moment a night heron appeared, gave a sharp cry, and flew away into the distance. I could hear the flapping of its wings. In an instant all my doubts and the gloomy mist of my confusion vanished. Everything I had held infirm conviction, everything upon which I had ordinarily relied was swept away with the wind. I felt that I understood just one thing. Without my thinking about them, words came from my mouth: "In this world there is nothing at all . . . " I felt that I understood nothing. [To "understand nothing," in this sense, is to recognize the insufficiency of intellectual knowledge]

I could see that all the concepts to which I had been clinging, the very notion of existence itself, were empty fabrications. My spirit became light and clear. I was dancing wildly for joy. I could hear the small birds chirping in the trees, and see the distant waves glistening in the rising sun. The leaves danced green and sparkling. I felt that this was truly heaven on earth. Everything that had possessed me, all the agonies, disappeared like dreams and illusions, and something one might call "true nature" stood revealed.

I think it could safely be said that from the experience of that morning my life changed completely.

Despite the change, I remained at root an average, foolish man, and there has been no change in this from then to the present time. Seen from the outside, there is no more run-of-the-mill fellow than I, and there has been nothing extraordinary about my daily life. But the assurance that I know this one thing has not changed since that time. I have spent thirty years, forty years, testing whether or not I have been mistaken, reflecting as I went along, but not once have I found evidence to oppose my conviction.

That this realization in itself has great value does not mean that any special value is attached to me. I remain a simple man, just an old crow, so to speak. To the casual observer I may seem either humble or arrogant. I tell the young people up in my orchard again and again not to try to imitate me, and it really angers me if there is someone who does not take this advice to heart. I ask, instead, that they simply live in nature and apply themselves to their daily work. No, there is nothing special about me, but what I have glimpsed is vastly important.

Toward a Do-Nothing Farming

For thirty years I lived only in my farming and had little contact with people outside my own community. During those years I was heading in a straight line toward a "do-nothing" agricultural method.

The usual way to go about developing a method is to ask "How about trying this?" or "How about trying that?" bringing in a variety of techniques one upon the other. This is modern agriculture and it only results in making the farmer busier.

My way was opposite. I was aiming at a pleasant, natural way of farming [Farming as simply as possible within and in cooperation with the natural environment, rather than the modern approach of applying increasingly complex techniques to remake nature entirely for the benefit of human beings] which results in making the work easier instead of harder. "How about not doing this? How about not doing that?"- that was my way of thinking. I ultimately reached the conclusion that there was no need to plow, no need to apply fertilizer, no need to make compost, no need to use insecticide. When you get right down to it, there are few agricultural practices that are really necessary.

The reason that man's improved techniques seem to be necessary is that the natural balance has been so badly upset beforehand by those same techniques that the land has become dependent on them. This line of reasoning not only applies to agriculture, but to other aspects of human society as well. Doctors and medicine become necessary when people create a sickly environment. Formal schooling has no intrinsic value, but becomes necessary when humanity creates a condition in which one must become "educated" to get along.

Before the end of the war, when I went up to the citrus orchard to practice what I then thought was natural farming, I did no pruning and left the orchard to itself. The branches became tangled, the trees were attacked by insects and almost two acres of mandarin orange trees withered and died. From that time on the question, "What is the natural pattern?" was always in my mind. In the process of arriving at the answer, I wiped out another 400 trees. Finally I felt I could say with certainty: "This is the natural pattern."

To the extent that trees deviate from their natural “For thirty years I lived only in my farming….” form, pruning and insect extermination become necessary; to the extent that human society separates itself from a life close to nature, schooling becomes necessary. In nature, formal schooling has no function.

In raising children, many parents make the same mistake I made in the orchard at first. For example, teaching music to children is as unnecessary as pruning orchard trees. A child's ear catches the music. The murmuring of a stream, the sound of frogs croaking by the riverbank, the rustling of leaves in the forest, all these natural sounds are music-true music. But when a variety of disturbing noises enter and confuse the ear, the child's pure, direct appreciation of music degenerates. If left to continue along that path, the child will be unable to hear the call of a bird or the sound of the wind as songs. That is why music education is thought to be beneficial to the child's development.

The child who is raised with an ear pure and clear may not be able to play the popular tunes on the violin or the piano, but I do not think this has anything to do with the ability to hear true music or to sing. It is when the heart is filled with song that the child can be said to be musically gifted.

Almost everyone thinks that "nature" is a good thing, but few can grasp the difference between natural and unnatural.

If a single new bud is snipped off a fruit tree with a pair of scissors, that may bring about disorder which cannot be undone. When growing according to the natural form, branches spread alternately from the trunk and the leaves receive sunlight uniformly. If this sequence is disrupted the branches come into conflict, lie one upon another and become tangled, and the leaves wither in the places where the sun cannot penetrate. Insect damage develops. If the tree is not pruned the following year more withered branches will appear.

Human beings with their tampering do something wrong, leave the damage unrepaired, and when the adverse results accumulate, work with all their might to correct them. When the corrective actions appear to be successful, they come to view these measures as splendid accomplishments. People do this over and over again. It is as if a fool were to stomp on and break the tiles of his roof. Then when it starts to rain and the ceiling begins to rot away, he hastily climbs up to mend the damage, rejoicing in the end that he has accomplished a miraculous solution.

It is the same with the scientist. He pores over books night and day, straining his eyes and becoming nearsighted, and if you wonder what on earth he has been working on all that time-it is to become the inventor of eyeglasses to correct nearsightedness.