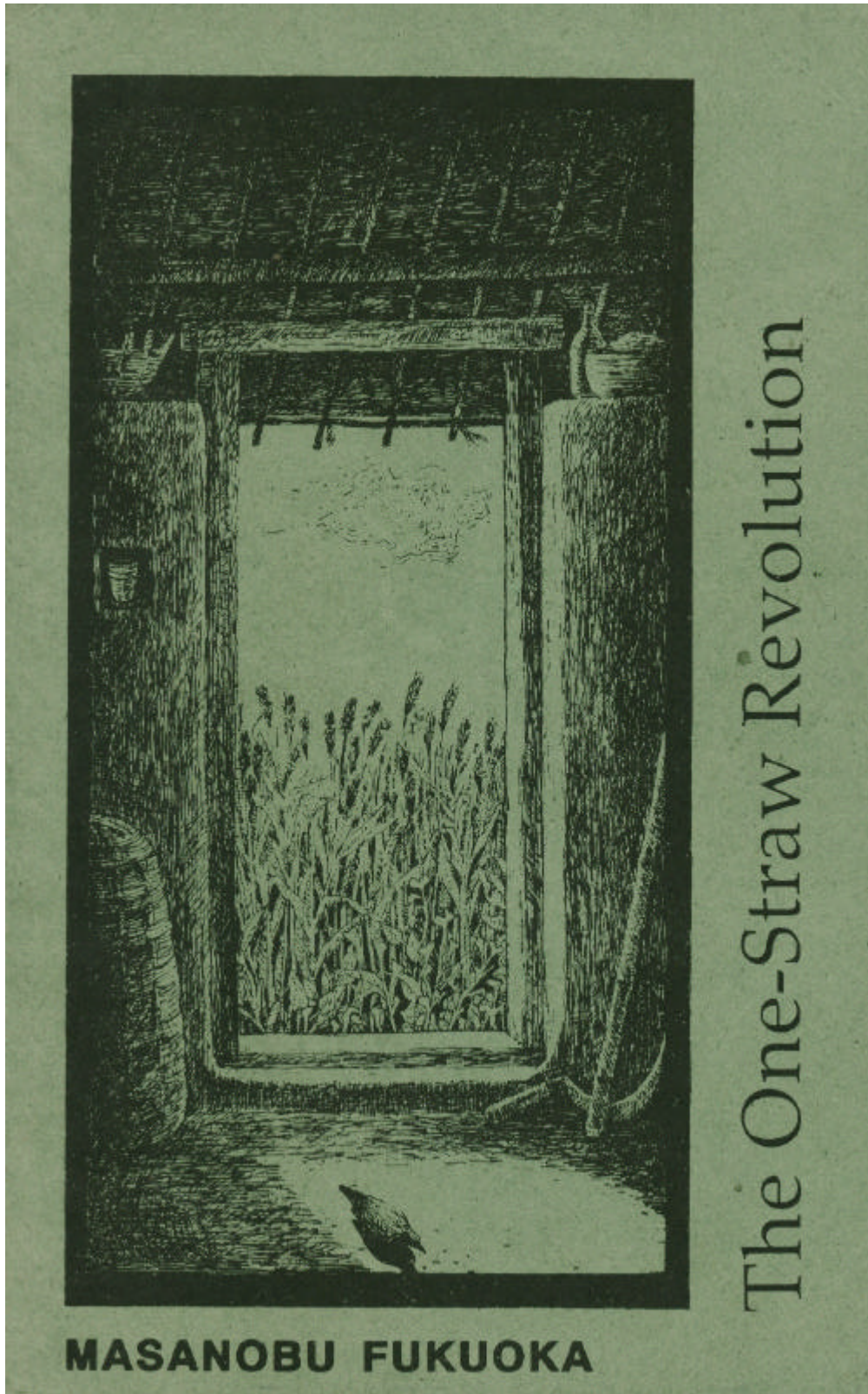


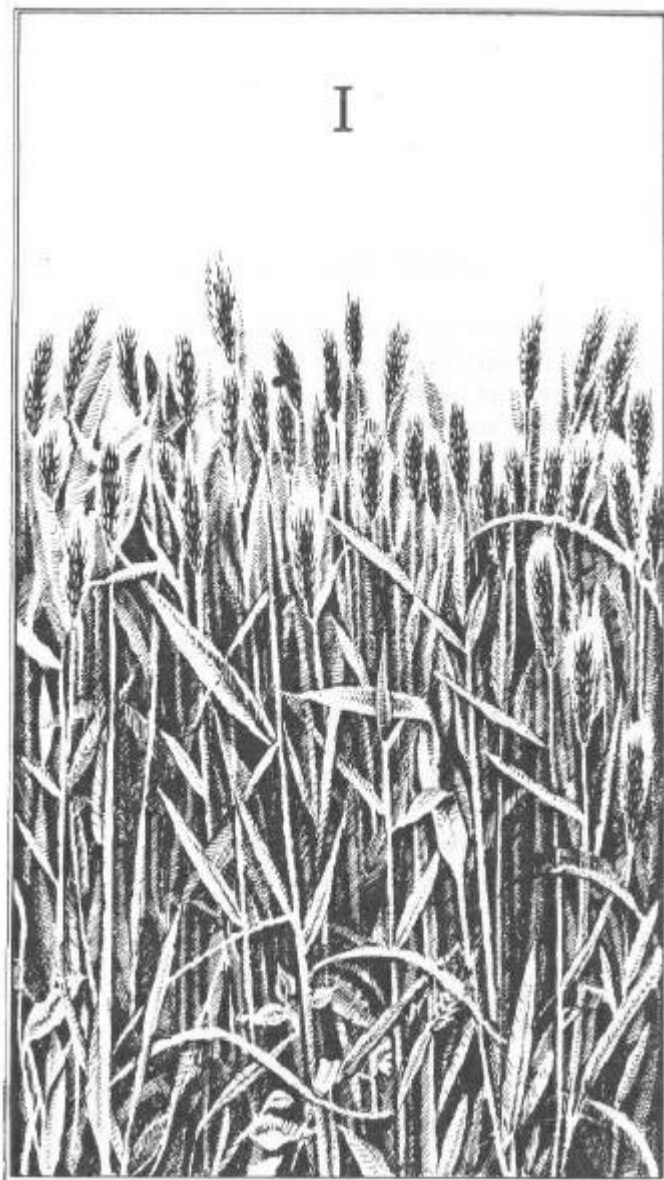
The One-Straw Revolution, by Masanobu Fukuoka, 1978.



The One-Straw Revolution

MASANOBU FUKUOKA

I



BOOK I

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. Nevertheless, I have come to realize the weight and power of this straw. For me, this revolution is very real.

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. 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 ploughed 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. However, 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 craft 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. I 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 speciality of plant pathology. This laboratory was located next to Yamate Park and looked down on Yokohama harbour 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 Centre.

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 harbour, I could find no relief.

One night as I wandered, I collapsed in exhaustion on a hill overlooking the harbour, 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 harbour 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 in firm 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 would 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.

Returning to the Country

On the day following this experience, May 16th, I reported to work and handed in my resignation on the spot. My superiors and friends were amazed. They had no idea what to make of this. They held a farewell party for me in a restaurant above the wharf, but the atmosphere was a bit peculiar. This young man who had, until the previous day, gotten along well with everyone, who did not seem particularly dissatisfied with his work, who, on the contrary, had wholeheartedly dedicated himself to his research, had suddenly announced that he was quitting. And there I was, laughing happily.

At that time I addressed everyone as follows, "On this side is the wharf. On the other side is Pier 4. If you think there is life on this side, then death is on the other, if you want to get rid of the idea of death, then you should rid yourself of the notion that there is life on this side. Life and death are one."

When I said this, everyone became even more concerned about me. "What's he saying? He must be out of his mind," they must have thought. They all saw me off with rueful faces. I was the only one who walked out briskly, in high spirits.

At that time my roommate was extremely worried about me and suggested that I take a quiet rest, perhaps out on the Boso Peninsula. So I left. I would have gone anywhere at all if someone had asked me. I boarded the bus and rode for many miles gazing out at the chequered pattern of fields and small villages along the highway. At one stop, I saw a small sign, which read, "Utopia." I got off the bus there and set out in search of it.

On the coast, there was a small inn and, climbing the cliff, I found a place with a truly wonderful view. I stayed at the inn and spent the days dozing in the tall grasses overlooking the sea. It may have been a few days, a week, or a month, but anyway I stayed there for some time. As the days passed my exhilaration dimmed, and I began to reflect on just what had happened. You could say I was finally coming to myself again.

I went to Tokyo and stayed for a while, passing the days by walking in the park, stopping people on the street and talking to them, sleeping here and there. My friend was worried and came to see how I was getting along. "Aren't you living in some dream world, some world of illusion?" he asked. "No," I replied, "it's you who are living in the dream world." We both thought, "I am right and you are in the dream world." When my friend turned to say good-bye, I answered with something like, "Don't say good-bye. To part is just to part." My friend seemed to have given up hope.

I left Tokyo, passed through the Kansai area (*Osaka, Kobe, Kyoto*) and came as far south as Kyushu. I was enjoying myself, drifting from place to place with the breeze. I challenged a lot of people with my conviction that everything is meaningless and of no value, that everything returns to nothingness.

But this was too much, or too little, for the everyday world to conceive. There was no communication whatsoever. I could only think of this concept of non-usefulness as being of great benefit to the world, and particularly the present world, which is moving so rapidly in the opposite direction. I actually wandered about with the intention of spreading the word throughout the whole country. The outcome was that wherever I went I was ignored as an eccentric. So I returned to my father's farm in the country.

My father was growing tangerines at that time and I moved into a hut on the mountain and began to live a very simple, primitive life. I thought that if here, as a

farmer of citrus and grain, I could actually demonstrate my realization; the world would recognize its truth. Instead of offering a hundred explanations, would not practising this philosophy be the best way? My method of "do-nothing" (*With this expression Mr Fukuoka draws attention to his method's comparative ease. This way of farming requires hard work, especially at the harvest, but far less than other methods.*) farming began with this thought. It was in the 13th year of the present emperor's reign, 1938.

I settled myself on the mountain and everything went well up to the time that my father entrusted me with the richly bearing trees in the orchard. He had already pruned the trees to "the shape of sake cups" so that the fruit could easily be harvested. When I left them abandoned in this state, the result was that the branches became intertwined, insects attacked the trees and the entire orchard withered away in no time.

My conviction was that crops grow themselves and should not have to be grown. I had acted in the belief that everything should be left to take its natural course, but I found that if you apply this way of thinking all at once, before long things do not go so well. This is abandonment, not "natural farming."

My father was shocked. He said I must re-discipline myself, perhaps take a job somewhere and return when I had pulled myself back together. At that time my father was headman of the village, and it was hard for the other members of the community to relate to his eccentric son, who obviously could not get along with the world, living as he did back in the mountains. Moreover, I disliked the prospect of military service, and as the war was becoming more and more violent, I decided to go along humbly with my father's wishes and take a job.

At that time, technical specialists were few. The Kochi Prefecture Testing Station heard about me, and it came about that I was offered the post of Head Researcher of Disease and Insect Control. I imposed upon the kindness of Kochi Prefecture for almost eight years. At the testing centre, I became a supervisor in the scientific agriculture division, and in research devoted myself to increasing wartime food productivity. But actually during those eight years, I was pondering the relationship between scientific and natural agriculture. Chemical agriculture, which utilizes the products of human intelligence, was reputed to be superior. The question, which was always in the back of my mind, was whether or not natural agriculture could stand up against modern science.

When the war ended, I felt a fresh breeze of freedom, and with a sigh of relief, I returned to my home village to take up farming anew.