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Stephen Kaffka: Pioneering UCSC Farm and Garden Manager, Agronomist

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Stephen (Steve) Kaffka



Steve Kaffka at the UCSC Farm, Circa 1972

Pioneering UCSC Farm and Garden Apprentice and Manager, Research Agronomist

Stephen (Steve) Kaffka came to UC Santa Cruz as a philosophy student in 1967 and began volunteering in Alan Chadwick's Student Garden Project in the same year. He worked side-by-side with Alan Chadwick and eventually became the student president of the Garden in 1968. In this oral history, conducted by Ellen Farmer at her house in Santa Cruz, California on August 31, 2007, Kaffka shares his recollections of Alan Chadwick and the Garden in the late 1960s and early 1970s, as well as the period after Chadwick left, when Kaffka managed the

Farm and Garden and formalized the apprentice program through University of California Santa Cruz Extension.

Although Alan Chadwick was deeply troubled by the specialization and fragmentation of scientific practice within the academy, paradoxically, Kaffka, perhaps Chadwick's closest apprentice at UCSC, ended up with a distinguished career as a research agronomist. After he left UC Santa Cruz in 1977, Kaffka earned his Ph.D. in agronomy from Cornell University, and now directs UC Davis's Center for Integrated Farming Systems. He is also director of the California Biomass Collaborative and extension specialist in the Department of Plant Sciences at the University of California, Davis. He chairs the BioEnergy Work Group for the University of California's Division of Agriculture and Natural Resources, and participates on several advisory committees for the California Energy Commission and California Air Resources Board. Kaffka conducts research on water quality and agriculture in the Upper Klamath Basin, and the reuse of saline drainage water for crop, forage, energy biomass feedstocks and livestock production in salt-affected areas of the San Joaquin Valley. He has M.S. and Ph.D. degrees from Cornell University in agronomy and a B.S. from UC Santa Cruz in biology. In May 2008, Kaffka was the subject of an NPR documentary, "Are Organic Tomatoes Better?" which featured his research comparing the nutritious value of organic versus conventionally grown tomatoes.

Additional Resources

Curriculum Vitae (publications and positions held):

<http://www.plantsciences.ucdavis.edu/kaffka/>.

Website about anthroposophy: <http://www.anthroposophy.org>.

Sites about Alan Chadwick: <http://learningtogive.org/papers/paper188.html>;

<http://www.ecotopia.org/ehof/chadwick/index.html>.

Randall Jarrell and Irene Reti, eds. *The Early History of the UCSC Farm and Garden* (Regional History Project, University Library, UCSC, 2003).

Alan Chadwick, Stephen J. Crimi (Editor), Foreword by John Jeavons. *Performance in the Garden: A Collection of Talks on Biodynamic French Intensive Horticulture* (Logosophia, 2008).

The Chadwick Garden Anthology of Poets (Friends of the UCSC Farm and Garden, 2009). Introduction by Beth Benjamin.

Christina Waters, "Fire in the Garden," *Metro Santa Cruz Newspaper*, Oct. 2-8, 1997, <http://www.metroactive.com/papers/cruz/10.02.97/chadwicks-garden-9740.html>

Farmer: We are here today in Santa Cruz. This is Ellen Farmer, and I'm with Steve Kaffka. The date is August 31st, 2007. So, Steve, I'm going to start with basic questions like where were you born and where did you grow up?

Beginnings

Kaffka: I was born in Hackensack, New Jersey, and lived there until I was ten, and then moved with my family to the San Fernando Valley, to North Hollywood. I lived there through high school and graduated in 1966. After high school, I attended St. Mary's College in Moraga [Contra Costa County] for a year and then transferred as a sophomore to UCSC in fall 1967.

Farmer: Oh, when it opened, pretty much.

Kaffka: Two years after.

Farmer: And was your family ever involved in farming?

Kafka: My family has a completely urban background. In New Jersey, there was no grass in my neighborhood except in the parks.

Farmer: So what drew you to UCSC?

Kafka: A girlfriend.

Farmer: Ohh!

Kafka: (laughter) Plus, the absolute beauty of the place. My high school girlfriend went there, and I had other friends from high school who went to Santa Cruz as well. I wasn't satisfied with what I was getting at St. Mary's, and Santa Cruz seemed like a great place, so I was fortunate to be able to get in, as a sophomore especially.

Farmer: Yes. So what did you major in?

Kafka: Philosophy. That's how I got to know Paul Lee.¹ I took my first philosophy class from him. I was very attracted to Paul because he was very charismatic and, I thought, a fine teacher. I still value some of the things that he opened up from in philosophy, particularly classical Greek philosophy and the pre-Socratics.

The Student Garden Project

The first time I worked in the Garden was in the fall of '67. I went with my girlfriend who wanted to work there, and Alan [Chadwick] put us to work in the shade garden, which is abandoned now. It's not there anymore, but was at one time a nice place at the tip of the Garden, under the redwoods, with ferns and

shade-loving plants like digitalis and fuchsias. That day we made a little pathway and planted some things.

I didn't like the work, so I disappeared for a while after that. I didn't come back until the following spring. By that time, I had a different motivation for going. I had gotten swept up in the anti-Vietnam War mood of the time and was pondering both my own relationship to the larger society and also potential participation in that war when I would graduate. I decided that that war was a manifestation of the larger cultural and social forces operating, directing American life, and that if I didn't want to have to be a part of that, or wanted to somehow find an alternative way to live, I needed to learn how to grow my own food.

So I went up to the Garden in the spring and started working there. This time I was more open to the place and liked it. I figured out that I could, if I lived in poverty, work there for the summer, because there was food at the Garden, and you could sleep in the woods if necessary. I made lots of ad-hoc arrangements for staying places. I worked there full time that summer, and I took to it. I must have had some capacity for it anyway. I liked it a lot and worked very hard. I got to know Alan Chadwick, and I think by the end of that summer, since I was a student and a lot of the people who were really dedicated to the place were not students (or had been but had dropped out), I ended up being named the student president of the Garden by the end of that summer, in fall, 1968. I was the second president. The first was John Powell, who had worked heroically the first summer with Alan to start the Garden. He had left school.

Farmer: Now, is this 1968?

Kaffka: Yes. There wasn't much of an organization, really. We didn't have a treasurer or vice president. Essentially I was nominated to be president by Alan, which was a British aristocrat's notion of democracy. [laughs] I stayed in school, and I tried to balance going to school and working in the Garden as much as I could, which wasn't always that much at times when I was in school (less than Alan needed or desired). But every summer after that, and as much as I could during breaks and during the school year on weekends or during the week, I would work at the Garden.

Farmer: And you were growing food as well as flowers?

Kaffka: Well, most of what was grown in the Garden was flowers. Half of the upper slope you can see from the road—what was called the main garden—was vegetables, the upper half. The lower half was flowers. There were a few apricot trees, and they never really produced very well, but even if they had, there would have been many more people wanting to eat them than there were fruits. (chuckles) But the rest of the Garden, the lower half of the main garden and all the rest of it—the middle garden and the herbaceous borders and all of that was all flowers.

Farmer: The trees that are there now hadn't even been planted yet, it sounds like.

Kaffka: Orin [Martin] did that. Orin changed the Garden quite a bit from what it was during Alan's time and through the time that I managed it.²

Farmer: So it was just a rocky hillside.

Kafka: Well, it's really quite interesting. It was not different than the hillside above the Garden. I'm not sure why Alan chose that spot, but subsequently, sometime later, I saw a picture of an older hillside garden in Britain with beds running up and down a hillside that looked almost identical to what he created. It had been from Britain somewhere on a south-facing hillside. He may have seen something like that elsewhere.

But there is a little apocryphal story. I would often give visitors tours of the Garden. There were a lot of people who came. At the time, Grant McConnell, who was a professor of political science in the early years in Santa Cruz and had been very active in the conservation movement, was teaching at Santa Cruz. He and his wife Jane McConnell were interested in the Garden because they thought it was a neat thing. Grant and Jane had been very active in helping establish the North Cascades National Park, with the help of David Brower, who was at one time the head of the Sierra Club and then Friends of the Earth. So he brought David Brower to the Garden to see it. I showed them around. I started the tour off saying, "The Garden at one time looked just like this chaparral-covered hillside. Now look at how wonderful it is." Grant told me later that David said to him in an aside that the chaparral-covered hillside looked just fine to him. I've always remembered that, because in that anecdote you have a juxtaposition of two views of nature and what humankind's relationship to nature should be. One is concerned with preserving nature (Brower), while Alan saw the original hillside as a place to transform and create. I see these contrasting views in all kinds of places: in the Upper Klamath Basin, where I have worked, and other places. You have people who have an ethos that says: work, change and

transform nature, make something from natural resources. They're farmers, or they are people who have natural resource-based livelihoods. Then you have others who say that the best way to treat these resources is to step away from them and leave them alone. So anyway, that's just a little aside.

During that time there were a number of things that started to happen. The first significant challenge to the integrity of the Garden was during, I think, 1969. I can't remember the years so well.

Farmer: When did you graduate?

Kaffka: 1970. At one point, I think after '69 or so, Merrill College was under construction, the fourth college. They were trying to site the provost's house for Merrill College, and it sits right above the Garden. The provost's house is at the bottom of the hill now, below parking lots at Merrill. Jack Wagstaff³ thought that the best place for it would be down essentially *in* the Garden, in the area that we called the nursery, because that location had the best view of the bay. It was a really beautiful view. But that would have required losing a section of the Garden that had been planted and was in active use, and Alan thought was essential because it was a little less sunny and you could nurse plants along there, especially perennials.

So we organized a protest—student petitions, and a little story in the *City on a Hill Press*. Even though there weren't ever a large number of students working in the Garden, there was always strong sentiment in favor of the place in the student body, and that set of petitions and protests was effective.

Dean McHenry

Dean McHenry [UCSC's founding chancellor, in the position from 1961-1974] moved the house, against the protests of both Jack Wagstaff and Philip Bell, who was the incoming [Merrill College] provost, which I think was extraordinary.

Farmer: It is.

Kaffka: It would never happen in the modern University of California, something like that, I don't think. I don't think so. But anyway, McHenry did it. He moved the house site and that little nursery area was preserved. It's not much planted now, so they might have been able in the long run [to] put the house there.

Farmer: (chuckles)

Kaffka: That area seems to be abandoned now, but it was very actively used at the time, so the house site was moved. I think that said quite a bit about McHenry. Certainly he had the authority to do that, but he was willing to listen to the wishes of the student body, in that way at least.

Farmer: Now, didn't he also have something to do with getting the Garden established?

Kaffka: Well, he had to have something to do with that, certainly, because there were no major decisions made on the campus without McHenry's involvement. There wasn't a large tree cut that he didn't approve, literally. He was very concerned that the campus be, as much as possible, woven into that landscape.

He was very aware of its beauty. I think that they did a wonderful job in the early years of developing the campus—everything from signage, which is nicer than I see at any other UC campus, to the fact that they went to extra trouble to retain the trees around buildings, and so on. For the most part, the architecture is largely as tasteful as you could ever hope for in a public institution like that. The McHenry Library is a wonderful example of beautiful architecture.

Farmer: Yes, that's true. And he had a particular interest, apparently, in farming, from his own background.

Kafka: He was a farmer. He grew up in Santa Maria area, Lompoc [California]. He would tell me some stories sometimes about that, mostly as a contrast to what he was seeing in the Garden, because his family did dry farming [of] lima beans and wheat. It was probably a reasonably successful farm, but not an easy life.⁴ The gardening that took place and takes place at Santa Cruz isn't really related to agriculture in California in any obvious way.

Farmer: You mean the major agricultural industry?

Kafka: The thirty-billion-dollar industry of agriculture. McHenry—Dean came out of a traditional farming background. I think that attracted him to the Garden because he valued the experience of working land and growing things very highly. One year, my wife and I rented a house from him up in Bonny Doon. We lived there where they had their vineyard. They had an old house that we lived in. So we knew him pretty well. I know he valued the nature of the activity for students. He saw that that was valuable.

Farmer: Did it ever become something you could do for [college] credit, or anything like that?

Kaffka: No.

Farmer: It was an extracurricular—

Kaffka: Well, for me it was always extracurricular. Some people may have worked there for credit. I doubt it. I don't know of any. It may be that there *were* some. Maybe people wrote essays for classes about it. We definitely wooed faculty. We would invite selected faculty up to the Garden for lunches. It was quite a nice event—you know, flowers and on the porch of the chalet. Vegetables from the place. As a student, I had one perspective. But now, thinking about it, if I were in the position of a faculty member, of having been invited, it would have been quite a nice, neat kind of experience to have, to be fêted there.

Alan Chadwick

Farmer: And it was very sophisticated too, right? Because of Alan Chadwick.

Kaffka: Alan was a first-rate cook. One of the little things that I got from him was an appreciation of what good food is, really good food.

Farmer: Was everything he used from the Garden?

Kaffka: Oh, no. The vegetables that we grew, he used, certainly. But he would buy other things always, at Shopper's Corner [Market] mostly. We would often grill salmon from the [Santa Cruz] Wharf for people. That obviously came from the sea. Alan was a real sugar addict. He would make these tarts that were

essentially a big can of jam, with a killer crust baked on top of the jam, for tea sometimes, bring them over, and then he'd put sugar on that.

Farmer: Oh! (laughter)

Kafka: And espresso coffee at four in the afternoon, just like thick— Just jacked up.

Farmer: Whoa!

Kafka: (laughter) He'd do that. But the crusts were really— I've never had better crusts. And he'd buy the butter for that. No, he wasn't committed to just eating locally per se.

Farmer: So it was the idea of the Garden and having wonderful small events there with select, invited people that was the important thing.

Kafka: Yes, it was part of having it be supported more broadly by the campus community. Giving away flowers was the thing I think that made people love it. It was extraordinary. There was a little bus kiosk across from the Garden that was adopted as a flower stand. People would come up the East Drive there and stop in the turnout and go across and get flowers. There were complaints from some of the florists in the town at the time, because there were thousands of flowers given away every day. If you went in any office around the campus, people had them. It was such a wonderful thing, really, to do. And it was such an extraordinary idea, to give them away.

Farmer: Was this Alan's idea?

Kafka: Yes, of course. It was, yes. But he would get mad at people because they would knock flowers out of the water, and [chuckles] he used to go down there, and he wouldn't necessarily yell at them, but he would fume when he was down there, about these people not being able to get flowers out of the water without disturbing them badly, knocking some out. There was always that. There was always that contrast between this fabulous generosity and then the fuming and anger about it when people didn't conform to his sense of rightness.

And Alan was very careful to make sure that Dean McHenry was well provided for, so every Saturday we took stuff over there for him and Jane, flowers and vegetables. It had to be laid out beautifully—and it was very nice.

Farmer: Wow.

Kafka: It *was* nice, and they appreciated it. All that helped. All that helped a lot. We had Norman O. Brown up for lunch.⁵ I remember this one more than any other, because I found him such an interesting guy. I had some conversations with him before he died here, a few years ago, but didn't get to see him again. But he came up. We had this great lunch for him, and I tried to memorize a passage out of Virgil's *Georgics*, in Latin, because I had taken Latin in high school. We had this little toast. I got two-thirds of the way through it, and I lost track of the last few lines, and Brown finished it! Very impressive. I mean, he didn't know what I was going to do. That created a nice relationship between us, because he said, "You know, I thought people came up here to get away from studying and from this kind of stuff." [laughter] He said I could be a graduate student with him after I graduated, if I'd wanted to. I never took that up. I was

running the Farm and Garden. But it was a generous offer. It was a neat thing. So that was a nice activity that went on, entertaining people and so on.

The largest event that I can remember during that time—I think it was in about 1970, in the spring. A man named Francis Edmonds came to visit the Garden. Francis Edmonds was the head of a small school in England called Emerson College, and Emerson College was focused on the teachings of Rudolf Steiner. He came because my roommate, and still good friend, Jim [Pewtherer], had made some contact and was getting interested in the Anthroposophical Society. So he came and we had salmon for 150, a sit-down dinner up there at the Garden. I grilled the salmon. [Laughter.]

I had the good fortune of being at the table with Francis Edmonds. Alan had not talked very much about Rudolf Steiner and anthroposophy in those early years, and he never used the term, in my memory, “biodynamic.” At one time, people would refer to the raised-bed, intensive gardening that he taught and introduced to the U.S. actually, as French intensive gardening. That’s what Alan called it. Later on, after Edmonds’ visit, he would begin to talk more about Steiner, or at least anthroposophical notions, esoteric notions. The term “French intensive biodynamic gardening” started to be used, but it wasn’t really part of what he talked about initially. Alan never used what are called biodynamic preparations, ever, and I don’t think he ever did in any of his gardens.

Farmer: Do you think he was taught that but he chose not to use it?

Kaffka: I think Alan was one of the more original interpreters of Steiner’s ideas, not simply a rote follower of Steiner’s suggestions or notions.

Farmer: So was he trained in England, or somewhere else?

Kaffka: Alan? A couple of years ago, his nephew called me up. I have some notes about it. I asked him about that. Apparently the whole Chadwick family was keen on gardening. The father was a squire or some minor gentry, and he was quite old when Alan was born. Alan said seventy. Also very rigid. Alan was eventually disowned for becoming an actor. It's hard to know what was true, and what was invented, but he was, anyway, quite old, and he had very, very rigid ideas about what was proper activity for a gentleman, but it included a love of landscape gardening and horticulture. So apparently Alan's brother[s], Seldon and Aldon, all of them were good gardeners, excellent gardeners. Alan said he had been apprenticed in France. He also said that as a child he had met Steiner.

Farmer: I wondered about that.

Kaffka: I have no idea whether it's possible. Steiner died in 1926.

Farmer: And Alan was?

Kaffka: Alan died in '80, I think, and he was seventy-seven or seventy-six.⁶ So it's possible, as a child— Probably one could find out, if you were really interested. But he would have been quite young.

Farmer: Well, let's go back to the 150 people at the Garden.

Kaffka: We had this phenomenal dinner. From that point on, Alan started to become a bit more involved with the anthroposophical circles in California. A group of us went down with him, I think that summer, and he gave lectures at

Highland Hall, which is a Waldorf school in North Hollywood, actually. Everybody had dinner at my parents' house. Ironically, I remember I used to see that place when I was a kid and wonder about it. Alan was always very dramatic and a wonderful person to listen to, no matter what he said. People in anthroposophical circles were interested, so he started to do a bit more lecturing. From that time on he started to talk about biodynamics as a more generic version or term to encompass some of the vitalist ideas that he had about gardening and nature.

When Francis Edmonds came, he suggested [that] he send Herbert Koepf to Santa Cruz, [and that] Herbert Koepf would like to see this place. I don't know if you know who he is.

Herbert Koepf

Farmer: I don't.

Kaffka: If you were to read about biodynamic agriculture, you would find his name as the principal name in the late twentieth century. He wrote the standard book on biodynamic agriculture, in German and in English, and was in what they called the Vorstand in the Anthroposophical Society.⁷ There were seven leaders of different divisions of the Anthroposophical Society, and Herbert was the leader of the biodynamic agriculture movement worldwide, and was also teaching biodynamic agriculture at Emerson College. So the next summer he came, and he stayed in my house on Western Drive, which was short on amenities and very primitive, really. It was really extraordinary. Here was another middle-aged man who was willing to stretch his limits. Herbert came

and gave a lecture about biodynamic agriculture in its more formal (Steinerian) sense.

It was also interesting that Alan didn't want to have anything to do with him. He was almost rude. Herbert was there, but Alan didn't interact with him at all. It surprised me. I think partly Alan's reaction may have been a residue of Herbert being German, but he was also a separate authority, a different authority, different from Alan. Whatever the reasons, they didn't interact at all. Herbert subsequently returned several times after the Farm had started, at my invitation. He came on two or three occasions to give lectures and again stayed with us. He became a friend and mentor. He was a scientist and well trained. He was a soil scientist and had been in a German university professorship in soil science at Hohenheim University in Stuttgart. But he also had the capacity to tolerate cognitive dissonance: to handle, or be interested in and committed to, alternative agriculture notions. I hadn't met anybody like him before.

Farmer: He could hold all those different things in his head at the same time.

Kaffka: He tried to integrate those different ideas. He became something of a mentor for me. And subsequently, when I [later] left Santa Cruz and had a Fulbright to go to Germany, he helped set that up. We wrote a couple of papers and a book together, later. So it was a lifelong connection for me. It was enriching.

Staying on to Work in the Garden after Graduation: The Early 1970s

When I graduated in 1970, I stayed on to work full time in the Garden. That was facilitated by something else that was extraordinary in my own biography. I had sought conscientious-objector status. I was drafted in 1970. Alan and I were fairly close. We did a lot of things together. When he would go off to give talks, I would always go with him. He'd ask me to come with him and help him drive, and I went to some very interesting events, I have to say. I had a fairly close relationship with him, and as the president of the student organization helped get funding for the Farm and all of that. We worked very closely together. I'd call these meetings, and Alan would give his great lectures, and we'd talk about things with the students. I was graduating and the Vietnam War was raging, [and] with Alan's encouragement, I applied for conscientious objector status. I was fortunate enough to actually get it. Dean McHenry wrote a letter supporting me, even though he said he didn't believe in that view. But he believed that I was being honest and truthful. I got CO status, and I was assigned to work in the Garden, which is also rather extraordinary.

Farmer: It is. Alternative service.

Kaffka: Yes, that was my alternative service, instead of a hospital or whatever.

Farmer: Did you suggest—

Kaffka: I had said that, "We're building this farm, and we're creating alternatives to the kinds of social institutions that led to conflict and violence." Perhaps the chancellor's letter mentioned that, I don't know. I don't know

exactly how that worked. I apparently had a reasonable narrative for them that they believed. So from about that time on, that summer on, that was part of my reason for being there. I was really very committed to those ideas; otherwise I don't think I could have been persuasive to the draft board. [laughs]

Farmer: Yes. And so did somebody have to report that, yes, you were showing up for work?

Kaffka: Yes, they did. I certainly was showing up. Six or seven days a week. So in the summer of 1970, myself, Steve Decater, Michael Zander, and Greg Hudson all worked as assistants to Alan in the Garden. (I'll tell you a story about Steve in a minute.) Greg was also from my area, the San Fernando Valley, and was a student at Santa Cruz and had graduated in 1970 and was working there. You can see a picture of Greg in the California Tomorrow journal article from that time. He subsequently became a Waldorf schoolteacher. The four of us became the staff for Alan. Alan had his salary divided so that we each got two hundred and fifty bucks a month, or something like that, from Alan's salary.

Farmer: He was getting a salary from the University?

Kaffka: Yes. By then he was. He didn't initially. There was no money initially, but by then there was money coming in. A fellow named Jerry Walters, who's a lovely man, and is still around (I saw him at the Back 40 reunion)⁸ had the fortune or misfortune to be handling all the books. (laughter) Jerry has a lot of stories. He was telling me some of the stories about how Alan would come in and hide under his desk and jump up and say, "Boo!"

Farmer: Oh, geez. (laughter) And he was the administrator?

Kafka: Jerry was involved with housing or something, and they just dropped the bookkeeping in his hands. I can still see the people who worked for him, one woman in particular, but I can't remember her name. She was the one who actually wrote the checks. Alan used me sometimes to bring receipts over or stuff like that because he didn't like doing it, not that much.

Anyway, the four of us were kind of a staff. We'd all had some experience and had some skills. The Garden reached its height, in my view, in 1970, '71. It was bursting at the seams. And the Farm idea had come up by then. There was no place left to plant, just about, and he had these young people, lots of young people, lots of energy. I think Alan was really thinking that he had also things to contribute more broadly and needed a larger area, as we all did. We all thought that. And obviously it was very important to me.

Steve Decater was there. Steve had been a student in Santa Cruz, I think in '67 and perhaps even '66. Worked in the Garden some, I think, that first summer and fall, and then dropped out of school and went back up to Santa Rosa to start an organic vegetable gardening business. He was delivering them to his customers on his ten-speed bike. In the summer of 1969 the people who were working most actively in the Garden—'68, '69, through that period—were Beth Benjamin⁹ and Jim Nelson.¹⁰ And by the summer of '69, I still don't know what exactly happened, but Alan came to me one day and said that he was going to cast Jim and Beth out of the Garden for various reasons—including, but not limited to, the fact that he thought they interfered with student participation.

It was always called by Alan “The Student Garden Project,” and “The Student Farm and Garden.” That was the whole rationale for having it there, so that students could learn. The problem, of course, was that the labor was too much for students. Student participation, at best, was always inconsistent, including my own, because of conflicts with studying. And the levels of skill that Alan demanded and had to have were greater than people walking up the hill could ever have to start with, because no one had been trained in that landscape gardening tradition. Nobody ever. So there was always a need for people on a full-time, regular basis. Jim and Beth and a couple of other people who were friends of theirs as well were filling that role and also buffering Alan from direct contact with students, because Alan found that difficult, despite the name for the Student Garden. Alan called a meeting at the Garden, and he cast them forth. It was very biblical, complete with weeping and gnashing of the teeth. And very traumatic. My roommate and good friend, Jim Pewtherer, and I got into an argument about it. I had supported Alan, and Jim opposed it.

Subsequently, especially over the next fall, the students just kind of melted away. By Christmas and the during the winter quarter, Alan was going absolutely crazy with work, and he was irate that he couldn’t get any help. So Jim and I called up Steve Decater and asked him if he would come down and work with Alan. He agreed. He lived with us in our house in Zayante, and we drove him in every morning on the way to school. We worked there ourselves, as much as we could. But Steve really carried the Garden in that period, with his labor.

Farmer: And he wasn’t a student, either, right?

Kaffka: He had been, but no, he wasn't. There was always, always this problem of how to reconcile the labor needs, and the quality of the labor required, with random student participation. That was only finally solved when we started the apprentice program. That was the solution. And that was in 1974.

Farmer: Oh, so it was during that time you were trying to work that out, figure out a solution.

Kaffka: Well, essentially Michael, and I, and Steve, and Greg were a kind of staff like that. But none of us were students. Michael Zander had dropped out; Steve had dropped out; Greg and I had graduated. So we were all—Steve less so—Michael, Greg and I were really of the student body, and I had been the student president.

Farmer: What were you, twenty-two, twenty-three years old?

Kaffka: Just twenty-two, barely. And Dan McGuire was then appointed president of the Student Garden.

Farmer: Because he was still a student?

Kaffka: Yes, and then after him, Linda Jolly, and Linda was the last one. But I had a pretty long, good stretch there as president, a couple of years. (laughter) Anyway, there were the four of us. One of the extraordinary things that happened, I think, that had implications for the future of the place was that [art professor] Jasper Rose, who was then provost of Cowell [College] at the time, lent Alan some money to go on a vacation. Alan had not been out of the Garden

since the spring of '67 when he started it. He was there essentially seven days a week.

Farmer: So, for three solid years.

Kafka: Yes. We went on a couple of trips here and there—day trips, excursions, when he would leave the place. But that summer he went on a six-week camping trip to Blue Lake in the Sierra Nevada, near Grass Valley. A guy named Will David, a non-student who was working at the Garden, went with him and stayed up there. Alan was gone for six weeks while Michael and Steve and Greg and I were left in charge. The Garden ran beautifully. It did. Things went along, and there were meetings and discussions, and we wrote everything out on a large board. The four of us worked pretty well together.

The thing that was striking about it was that there wasn't this aura of tension and difficulty while he was gone. It returned the day Alan walked back in the Garden. The contrast was fairly striking. It wasn't that no one wanted him there; everybody wanted him there, but without the tension. There were always difficulties being around him. Everybody, even people like myself who had been working there, we were always kind of on tiptoes at times. It was unpredictable when there'd be a tirade of some kind.

But anyway, that short period was kind of a golden time in the Garden. It was Earth Day, too. We had this terrific booth down on Pacific Avenue, and we brought everything down: flowers and vegetables. It was a really neat time. For me, I think that became a point in time when I started to wonder how the Garden would be able to continue. From about the end of that summer through the next

spring—Michael Zander left; Greg Hudson started getting interested in Waldorf teaching and left. Steve Decater and I remained. But tensions between Alan and I started to grow fairly significantly, around both his style or way of overreacting, and also around the Farm, which was a big issue at the time.

Alan was always ambivalent about the university. Maybe other people have said that. He periodically would suggest that everybody should pack up and leave with him and go to various places that he had in mind. The first place was New Zealand. He wanted whatever group of students and people who were working at the time to just go off and form a little colony in New Zealand. Then he got interested in the Seychelles Islands. It was very serious. He was very serious about it. He described the place and how the university wasn't the right place for what he wanted to do. The university was crazy, and there were all these terrible ideas about biology and science, and it would be far better if we all started off in a new place. The idea Alan had about a master-apprentice relationship, that he would be the only source of information or authority in a place where ideas and broad learning are, in fact, the currency—there was an inherent difficulty about that. I mean, people like [biology professor and founding Crown College provost] Kenneth Thimann really thought that he was just full of nonsense—that he was crazy, that he was teaching erroneous stuff—and was not very happy about Alan's presence, or at least what he was teaching. I'm sure that must have been evident to Alan, and he probably felt like a fish out of water there, really, in the end, in terms of what he had thought was the best way to do things, and how to live.

Farmer: Because he wasn't trained as a scientist at all, right? He was an actor.

Kaffka: He was anti-science. He talked a lot about how terrible it was to do reductionist work, and how, if you break a thing into its parts, you could never understand it as a whole. It's quite interesting, because in the last few years I came across a book called *Look to the Land*.¹¹ It was written by a man named Lord Northbourne, who was a British squire. The organic movement in Britain was actually started [at the] beginning of the twentieth century and in the late nineteenth century. It was really a reaction against modern developments, not only in the landscape, but also in social structure in Britain. It was largely driven by organizations that were Christian in their character, and saw life on the land in the peasant-squire style, and maintenance of soil quality and recycling of manure, and mixed farming of livestock and cropping, and all of those things as part of a whole, a whole cloth. If you read that book, *Look to the Land*, you can hear the ideas that Alan had about the relationship between people and nature. They're all in there, not in quite the same words, but essentially. Alan's views about how agriculture should be organized, and what it was, come out of that historical context. It was quite striking for me to read that book and have it echo in that way. Northbourne was the first person to use the term "organic farming," in English anyway.

Alan was distinctly anti-science, at least anti-biological science. So there were a lot of tensions there, including during the Farm period when he was talking about, "Well, let's not do this after all. Let's go off and—"

Starting the Farm

Farmer: So can you talk about when the discussion started about the Farm, walking onto the land of the Farm and deciding where it was going to be?

Kaffka: We looked around a lot of places. Alan would lead groups of us to find a location. McHenry was willing. One of the reasons that the Farm was able to start was because at the time a surplus in student registration fees, or student assessment fees, had accumulated. A very different era. McHenry decided to let the students choose how to spend it. There were a number of different options: I think stuff for the theater, and for, I guess, bike paths—and the Farm, the Student Farm, was put up there. So it was put to an election that I was active in, and so were Dan McGuire and other people, trying to make it happen. It came in first. The students voted \$110,000 for the establishment of the Farm. So that money was there.

We would go and look at various places, and Alan would come along with a spade. We'd dig a hole and take a look at the ground. One of the areas that we all liked was behind the Cowell ranch house, which is now faculty housing. You know when you come up the main entrance, on the right were the [campus maintenance] shops. And then in the old ranch house, the Carriage House there, that's where Jack Wagstaff and Chuck Carr and the other campus architects had their office. Just next to that was the old Cowell mansion, which is quite a beautiful house. One idea was that Alan would live in that house. Then right behind that parking lot there was a large, twenty-, thirty-acre open field, relatively flat, and we thought that that would be where the new Farm would be.

We also looked at a meadow to the west of College Five that seemed like it had reasonably good soils. It would have been on the west campus. The field was located between Married Student Housing and College Five. And then down on the southern tip of the campus, where the Farm was eventually located. I don't know why one was chosen rather than another, honestly. I can't remember.

Farmer: Were there any buildings there at all when you chose it?

Kaffka: The old Cowell Ranch slaughterhouse was there.

Farmer: Which is still there.

Kaffka: It's still there. At one time, people were living in it when we were starting the Farm. But otherwise there was nothing, not a thing. That site was chosen, I think probably because it was the largest and it had some slope. I think Alan liked the swale. The idea for the new Farm—it was going to be based on Louis XIV's garden at Versailles, designed by [Andre] Le Notre. Subsequently I saw a picture of it, and in fact it was very similar to what Alan had in mind, which was trees and vines surrounding a central area with annuals, flowers and vegetables—a very structured garden. The Farm actually was laid out that way. We followed that plan. That was how it was supposed to be. It was from large into small. It's a very European idea, where you need protected gardens to have increased warmth. You don't need that in California. But those ideas were his roots and tradition, the way he thought about it.

Farmer: And all of those trees that are there now were planted at that time?

Kaffka: Yes, I put them all in, with help, but yes.

Farmer: So you planned where the borders would go?

Kafka: Oh, yes. I'll talk more about that later. Anyway, during that time, we were looking around. We were trying to go forward with planning for the Farm. Then things would stop. Alan would have second thoughts and would want to leave. Our relationship also was getting more and more difficult. It was probably, for me, the most traumatic time that I'd had in my life, because increasingly I became the focus of opposition to him. I had come to the conclusion that the Farm was not going to get started under the status-quo arrangement. And I felt very committed to it, for reasons that I've tried to explain. I was also committed to being at the place. I was still a CO, doing my alternate service, but I was doing that because I believed in it.

So anyway, that was going on, stopping and starting, back and forth, on again, off again, and it was [an] extraordinarily difficult time for me, and I think for everybody else as well. Alan was accumulating, or drawing in, a lot of people, young people who had no connection to the university, because he wanted both to probably replace the people that he'd had, like me, and also to find enough additional labor to keep the Garden going and eventually, possibly start the Farm.

Anyway, there was a lot of upset and turmoil around that time. There were a lot of planning meetings, a lot of meetings that went on with the students like Linda Jolly, who was student president at the time. Dan McGuire had left, essentially because of the stress; he couldn't take it anymore. Students and staff were getting yelled at constantly. University people who had supported [Alan] were

constantly criticized. Linda Jolly was then student president. And Elizabeth Penaat was involved. I don't know if you've heard her name. She was assistant to Hal Hyde, who was the vice chancellor for Finance and Services. It was under Hal that funding for the Garden had all basically been handled,¹² and Elizabeth was quite interested in the Garden and was assigned, I think by McHenry, to keep her eye on it. She's dead now. She died some years ago. Anyway, there were a lot of meetings to try to figure out how to get the Farm to start, and somehow tame or calm the mood in the project. We came to the conclusion that I would have responsibility for starting the Farm. My idea was that I would get the Farm started and then we would all work it out and Alan would be back in charge—somehow with time we would all work it out. This was very naïve.

Subsequently, in 1985, when we had our twenty-fifth reunion, I heard Elizabeth Penaat say that she had fired Alan Chadwick. Because he left Santa Cruz; he left after that division of responsibility was made. I had always thought he left because he wanted to leave. I hadn't known he'd been fired. Anyway, I was quite shocked when I heard her say that twenty-five years later, quite unhappy about that, though I clearly was part of the reason that they could let him go. I still feel, to this day, very badly about how that worked out, or didn't work out. I was very naïve about life.

Farmer: They never really told you.

Kafka: I don't remember. You know, when you're in traumatic times, sometimes you block memories. I've been trying to think about it, but it wasn't ever—I had no intention to ever see him leave there. I didn't imagine that I could

and didn't intend to replace him. I just felt that I was committed to seeing that Farm start. I was very devoted to him. I had been, more than any other person, a kind of right-hand man to him. I believed that he was fond of me. None of that prevented the breakup. It wasn't just him. All relationships involve two.

Farmer: Yes.

Kaffka: Anyway, I still think it's extraordinary that the administrators did that, because I was twenty-three years old, and it all fell on my shoulders once Alan left. The responsibility was placed on me. I think it's extraordinary that McHenry thought that was going to be okay. I think he decided that "We can't have what we have anymore," because that decision would not have been made without him.

Farmer: Yes. But there was all the tension that you were talking about.

Kaffka: Oh, yes, it couldn't be hidden from the administration and the campus. So anyway, there I was. It was pretty traumatic, actually, to think about taking on the Farm without any help. But I did. You know, you make decisions and you have to live with them, even if you can't anticipate the consequences.

So we did start the Farm, mostly with non-students and some students. There was a group that formed that initial year at the Farm. There were actually several different groups, but the largest one was a group that came to call themselves the Home Farmers.¹³ None of them had been students. They all showed up during this period of turmoil. But they were the people who were willing to work there for no money and build the place. They'd chosen to work with me because I had

been organizing and leading all the labor that summer to dismantle greenhouses and collect lumber and compost for the new Farm with the help of that group. Then there was a traumatic (for me) meeting when Alan came down to the Farm and a confrontation occurred at the Farm. He was really unhappy about responsibility being split. It was a big blowup, and he went stomping off back up to the Garden with a few people that stayed with him. The majority of them stayed down there on the Farm to work with me. So, yes, it was really tough. You'd think in a Garden— The irony of it for me is we were trying to build something that we felt would lead to peaceful interactions among people, and there was so much trauma and conflict. But that's life, isn't it? It's very instructive.

Farmer: Yes.

Kaffka: But anyway, that group stayed on, and a few others helped build the fence around the place, helped plant all the windbreak trees, those cypress trees that are there, from one-gallon containers.

Farmer: Wow. They're huge now.

Kaffka: Yes, they're big. It's been a while. This group helped lay the pipe for the irrigation system, which the campus designed for us, but we built. We put it in ourselves. The first building built on the Farm was what was called the Cookhouse. It's right at the entrance to it. That was built by Steve Decater, who did that basically to have some place to actually *be* there. There was no shelter of any kind. It was a place to cook. No planning, no design, no code. He just built it. It's now named after Louise Cain, but Steve Decater built it. And it's been rebuilt

substantially, but more or less in the same way. That was the only structure there at the time. We had this money, so we used the money for the irrigation system and for all those building supplies and for plant materials and fencing and equipment.

Farmer: Is this when the teepees went up?

Kaffka: We found some war-surplus material—ballistic nylon, missile-shield covers. Terrific material. And that group, at night, and some of the women during the day, sewed those teepees. I loved the symbolism of turning missile-shield covers into teepees. They did all the sewing, and we went up to the upper campus and cut trees for lodgepoles. We did all that, put those up. Some people lived in the slaughterhouse. That was as rough as it was.

During that time, Dean McHenry had some contact with Frank Reinelt, who was a flower breeder in Santa Cruz. Frank Reinelt is responsible for the tuberous begonia, [and] the Pacific Giant delphinium, *Primula polyanthus*. Untrained as a geneticist, just a man that loved plants, Reinelt had a fabulous greenhouse at the bottom of Western Drive right on Highway 1, that was going to be bulldozed for housing. I have a picture of myself with Frank Reinelt that Dean McHenry took. I went down to look at the greenhouse. He gave it to us. It felt like the passing of a torch. We organized parties to go down and break it down. We didn't take much of the glass because that was broken out, but it was virgin redwood. We took it all down and brought it up to the Farm and started using it for building materials in the structures that are there now. It was stuff that you can't ever get

anymore because it was original, first-cut heartwood. It's beautiful. So the Home Farmers helped with all of that.

A fellow named Brian Barhaugh was interested more in building than gardening, and he organized the building of the Barn there, which was all done without power tools, all done with mortise and tenon and traditional methods. It took forever, partly because Brian was not going to be rushed. Brian led the building and very successfully; it's still there, and a sound structure. I've got a picture of some of it going up.

We built the first cold frames there. There's a fellow named Kermit Carter, who had showed up at the Garden. Kermit was something of a prodigy. He was quite young, only nineteen when he showed up at the Garden. He had not been a student, but had been propagating orchids all his life and was really interested in plant propagation. Kermit worked at the Farm, and he built the lath house that's still there, and built the first cold frames and helped a lot with plant propagation. That was his specialty.

Let's talk a little bit about the trees. I mentioned that the design comes out of a French antecedent, from Versailles. We didn't have trees at the Garden, so I didn't really know too much about fruit trees. I got interested, so I started reading about them. [Edward J.] Wickson's book on fruit trees.¹⁴ Wickson was a professor at [UC] Davis; there's a building named after him there. Some of my colleagues are in it. He wrote a book in the thirties or forties. It's very eccentric, really, if you read it now, but he had a lot of information about fruit trees. And Chandler, another professor, I think from Riverside, wrote another book about

trees that I used. I was able to get help from Ron Tyler. Ron was the extension adviser in Santa Cruz County who focused on trees. He was a very traditional ag guy, consistent with the time and the era. But he was very generous with his time and very knowledgeable about trees, the way that you can still find the UC Cooperative Extension advisers to be knowledgeable about what they work on. He was very willing to help us and share with us. He took a look at the site and said, “Well, they’re not going to do all that well here because these aren’t great soils,” but he gave us some ideas about what we could plant. Not only that, he helped instruct me and the people that were there initially in pruning and getting the orchard started.

There was another fellow there named Dan Rogers, who had shown up at the university. He had not been a student. He was a great guy. He was interested in surfing, mostly. He wasn’t part of the Home Farm[ers] group, but he worked on the farm at that time a great deal and was interested in trees. So we drove around California to a few places and looked at dwarf fruit trees and odd varieties. We got interested in having a whole range of varieties, all different kinds of fruit trees. So with Dan’s help, and with Ron Tyler’s help, and with a lot of digging on my part, we were able to identify sources for quite a range of fruit-tree varieties—we had about twenty or thirty varieties of apples. Mostly apples, because Santa Cruz is an apple place. Ten, fifteen varieties of pears, six or seven varieties of plums, some apricots. Kiwis, we put in. Blackberries, raspberries. We put in gooseberries. They didn’t last. We didn’t do well with them, so they came out.

We started to dig beds and work our way out into the center of the Farm—planted the trees, and the Barn was going up. The little Cookhouse started by Steve Decater was the place where everybody was able to cook and have food. And then there was the teepee village. I wasn't living in it. I was living on Western Drive [with my] wife, and by '73 I had a son. I was working pretty much seven days a week. The work ethic that Alan brought and embodied was basically the only thing I knew as well: there was only one way to do things, and that was to work constantly, dawn to dusk, which everybody did. Actually, when you're young, it's a glorious thing to do. It's a glorious thing to be so in your body. I think one of the most powerful things that Alan taught had nothing to do with particular gardening techniques; it had to do with being in your body, and being able to physically effect change in the landscape with your muscles and have that kind of direct, intimate connection with the land.

After the first summer in the Garden when Alan used a rototiller (before I was there), he got on an anti-machinery bent, and there were no machines ever again used in the Garden. The idea was transferred down to the Farm: We were going to do everything, as much as possible, by hand. But because there were large areas that had to be cultivated or could be cultivated, we actually were interested in using horses. Again, I just don't see how this was even possible to have happen at the University of California, but we bought a team of horses. Nobody knew how to use them. We bought it from this eccentric guy named Jim Baccus. They were unmatched. One of them was crazy. They were draft horses. They were big animals. We assembled a bunch of old equipment, started to figure out how to

use it. But the horses didn't work out very well, not surprisingly, because nobody had any skill.

Farmer: Were there tools [left over from the historic Cowell] ranch?

Kafka: There was a lot of old, rusty stuff still around, and especially forty years ago you could still find little [horse-drawn] disks and stuff. We were making attempts at that, but it wasn't working out very well, and it seemed clear to me that it didn't seem very safe, and that it wasn't going to work out. That was a source of tension between me and some of the Home Farm[ers] group.

Farmer: They wanted to do the horses?

Kafka: Keep the horses. But one day the disk was being used in among the apple trees with the team, and because the person driving the horses wasn't skilled (because no one was skilled), they knocked a sprinkler riser head off and caused a gusher, and that caused those horses to bolt and run.

Farmer: Oh!

Kafka: The driver fell off, landed on his rear end on the disk, which sliced him to the bone. He was fine, after some stitches. There was no permanent damage. He's still around in Santa Cruz. His name is Tom Graves. That was the last day the horses were there. I got rid of them, and we purchased a tractor, the little Goldoni tractor, and used it for tillage in the orchards and things like that.

I had in mind always that the Farm and the Garden would be university resources for the broadest possible community, but particularly for students. I

knew that I would never be able to be charismatic and inspiring like Alan, but I had hoped that at a minimum we could teach some of what he taught, and that people would continue to have the opportunity to experience what I had experienced, which I had found so powerful and life-changing: to be able to work in this way, physically and in a holistic manner with growing things. I found that experience transformative. My hope was that we could create a place where others could have those same kinds of experiences. I feel largely vindicated in that, because the fortieth reunion event a couple of weeks ago was a demonstration that people still feel that way about the place. That feeling, that transformative experience is still accessible there.

Farmer: And it still happens to the current apprentices.

Kafka: Yes. It's become a culture in the place that's not dependent on anybody anymore.

Farmer: On an individual, you mean?

Kafka: Not on any individual. It's literally a culture. So you can think of this place as having given birth to an element of culture. It's the genesis of a movement. The Garden was right between Big Sur and San Francisco on the coast. It was organic from the beginning. It was fabulous. It was at the right place at the right time. Why did that happen? Who knows? It was right in the middle of those two centers of the back-to-the-land movement and the alternative culture of the late sixties and early seventies. It was centrally placed and timely.

Farmer: And then having this fabulous climate at the same time.

Kafka: Well, it is a fabulous climate. It's a place where everything grows without much in the way of pest and disease problems. That's another thing that lent to the success of it being organic that might not have been the case elsewhere in a more harsh climate. Things thrive here pretty well.

[But] despite the fact that we had as an ideal, social harmony, it was never easy. This Home Farm[ers] group really lived as if they were a commune. Their idea was that that place should be their commune. We had times when we had to ask women to be more fully clothed. [Chuckles.] I could just see some person coming up out of the community, and everybody working without their shirts on, and that not being a good thing. I was the director of the project, but as a group they wanted to have more autonomy in terms of making decisions about what should be done. So at some point or other, I had difficulties with that group, or they had difficulties enough with me. I was called a fascist dictator in the *City on a Hill Press*, much to my great embarrassment.

Farmer: [Chuckles.]

Kafka: And the group requested a meeting with Dean McHenry to discuss how the Farm should be led. It was a kind of mutiny.

Farmer: But none of them were students—

Kafka: No.

Farmer: —or connected to the university.

Kaffka: No. You have to wonder, what were they thinking? Dean met with them. I was there. He had a meeting up somewhere near the performing arts center, by the library. They got there, and they complained about me being too authoritarian, and they thought that things would be better if they could make decisions democratically, and this and that. Dean was sitting there, listening, looking over some other paperwork while he was listening. After a while he said, “Steve’s in charge, and it’s going to stay that way.” Then he left. I went up to the Garden after that meeting, and the group went back down to the Farm. Later, I bumped into Dean on his way to his house, when I was walking back down to the Farm that evening. I said I felt really bad about that whole thing, and he said, “Don’t worry about it. It’s what happens when you have responsibilities and you’re in charge.” He was very kind and very clear and supportive of me, always.

Farmer: And you’re still, like, twenty-four years old?

Kaffka: Yes, I was twenty-four.

A Gardening Narrative for Student Volunteers at the Farm

During the early phase of the Farm, one of the things that I feel I contributed was creating a narrative about gardening, a gardening narrative that people could follow sequentially and have things explained and demonstrated. I would always have classes for students who came down to the Farm on weekends, on Saturdays. Not every Saturday, but many Saturdays. We’d have a dozen or two dozen students come. We had to develop a formal way of demonstrating how to do raised-bed gardening and other forms of gardening. Alan wasn’t much of a

formal teacher that way. You learned gardening from example and he would show you things, but he didn't have a course, a structure. So I did that. I created that kind of narrative: how you prepare a raised bed; why you do it, things that I'd heard from him and probably some things I invented, but—

Farmer: Did you write it down?

Kaffka: Yes. I gave a copy of that to Martha Brown.¹⁵ I eventually did it in 1977. I wrote [it down] that year. But all the Home Farmers, and all the students that came down, and all the apprentices that I had, all received that narrative. It was quite something for me, in 1985, at the twenty-fifth anniversary, to walk around the Farm, (and they had apprentices at different stations, describing how to make compost, dig beds and [other things]) and it struck me, to hear my own words, not that they were mine, but at least the narrative being retold to me by people who didn't know who I was. I don't know exactly how it is now, but Orin [Martin] was trained that way. I have seen some sayings that were attributed to him that were part of that narrative, and originally were from Alan. It's part of the oral culture that survives there, independent of individuals, in a way.

We developed a series of narratives. We had classes on digging, and we had classes on planting, transplanting, propagation. Kermit Carter helped develop the narrative around plant propagation. He was good. I learned from him. He knew things that Alan didn't. And composting, other fertility issues, cover cropping, fruit trees, berries, all that stuff. Subsequently I started giving classes through University Extension for the public and for schoolteachers. We'd do

those on Saturdays. I started these while the Home Farmers were still there and continued them afterwards.

Farmer: Is this how the Friends [of the Farm and Garden] started?

Louise Cain and the Friends of the Farm and Garden

Kaffka: The Friends started while Alan was still there. I'm glad you asked, because I haven't mentioned Louise Cain yet. Louise Cain came to Santa Cruz with Stanley [A. Cain], who was connected to Dick Cooley, I think, who was the first provost of College Eight.¹⁶ Louise got interested in the Garden. Alan liked her. She was very vivacious. Alan didn't like all that many women, but he liked Louise. I mean, he just didn't interact with that many women, but he liked Louise. Louise got interested in it very strongly. I think she was probably the first president of the Friends (it could have been Eva Fosselius) but anyway, Louise was around when Alan was still there and the idea of the Farm was being developed. Louise remained interested, even after Alan left, in the Farm and the Garden and helped form the Friends of the Farm and Garden, at least lead it initially. My wife and I got to be friends with the Cains, and we had our wedding reception at their house. So that was a supportive relationship. We had a little birthday party for Louise at our house and did things like that, so it was nice. I liked Stanley a lot, too. Later, when I went back to school to get some biology credits so I could go into the sciences, I took a botany class (taxonomy) from him. Louise was active as head of the Friends organization, which kept going during all this time, and got really very much more active later as a more formal organization, especially towards the end of my time and after I left.

Alfred Heller

There's a picture in that article, [in] the journal called *Cry California*, called "The Lessons of a Garden." I gave a copy to Martha [Brown]. It was written by William Bronson, and that's when Alf Heller discovered the Garden, in 1970. He came down from San Francisco. We had him for one of those Garden lunches. His mother was a {UC} regent, so he had connections to the University [of California]. We had him for lunch at the Garden, and he then subsequently brought William Bronson, who was the editor of the journal that his organization, California Tomorrow, had, called *Cry California*. They decided to write an article for their journal, and it's still the best thing that I've ever seen that was written about the place. I had a lot to do with it. I made a chart for when you planted and sowed things. I'm quoted in the article quite a bit. There are pictures from before the Farm started.¹⁷

Alf Heller remained interested all that time, and I maintained a relationship with him. I visited him at his place up in Santa Rosa where he had put in his own apples, and lent him my book on dwarf fruit trees. At one time in the mid-seventies—'75, '76—he said, "I want to make a substantial gift to the campus to ensure that the Farm and Garden can continue." But they were always on annual soft-money funding. We had the apprentice program, but its survival was never certain, especially once McHenry left, stopped being chancellor. Elizabeth Penaat stayed on for a while as vice chancellor, but once she left, then all these chancellors and administrators took over who didn't have the connection to the place and its origins as McHenry had.

The Garden was not planned. It was not part of anybody's idea when the University of California, Santa Cruz, was conceived. Nor was the Arboretum.¹⁸ The two distinctive things about the campus, in my opinion, were not planned. A testament to McHenry was that such things could develop while he was chancellor, that he would trust that process. But he was gone; Elizabeth was gone, and the people in College Eight—Dick Cooley was there for a while, and then I think he left. So there started to be faculty in charge that were a couple of generations removed from the project's origins, both administrators and faculty, not connected to the place. I think there was ambivalence about the Farm and Garden. I remember that the *Los Angeles Times* ran a picture in their Sunday magazine of the teepee village.¹⁹ I'm certain that from that point on the campus did not want to be known for that. That wasn't the image they wanted associated with Santa Cruz. I can't blame them.

Farmer: Especially the scientists, I'm sure.

Kaffka: Well, no matter who, you know, might ask after seeing an image like that: "Are you serious?" So from that point on, there wasn't any thought of development funds and it became harder to keep funding going. That was in about '75. I think McHenry was still there up to about '74.

So it was always soft money year to year. By the seventies, money was getting more difficult to find. We had this money that we used for constructing buildings, but that was eventually expended.

Anyway, after this meeting with McHenry, with the Home Farmers, it became clear to them they couldn't do what they wanted. So a month or two later, they left for Arkansas to set up—

Farmer: Oh, the whole group.

Kafka: As a group. And then we were fairly short-handed at the Farm. But there was a fellow there named Fred Young, who had been a student at Santa Cruz, and he dropped out. Fred worked like a demon—Fred and I. And then just before the apprentice program started, Pierre Ott had come, and the three of us were holding things together and working all the time to keep it going. Fred subsequently went back to school at UC Davis, and he started the organic garden that's there on the campus. It's still there.

Farmer: Oh, yes. And that was in the mid-seventies?

Kafka: Yes, just before the apprentice program. Fred also became a soil scientist for NRCS [Natural Resources Conservation Service]. He has a Ph.D. in soil science now. I wanted to mention Fred's name because Fred really did a lot.

Farmer: That's a pretty big garden out there in Davis, isn't it?

Kafka: It's not too big. No, I'm not talking about what they call the Student Farm there. This is where the geodesic domes are in the center of campus. It's a smaller garden. It's still there. They have a big compost project there. The kids probably don't know who Fred is, but he started it.

Anyway, Louise was president of the Friends of the Farm and Garden. Louise understood how universities and bureaucracies worked. She moved quite well in that setting. Stanley had been Undersecretary of the Interior, and they'd been prominent Washington folks, so she was used to knowing how to acquire resources and things like that. Louise and Stanley, but Louise particularly was able to provide a bridge between me and the program that we were running, and College Eight and the faculty there and the provosts, and also was able to figure out that we could formalize the apprentice program through University Extension, develop some kind of certificate program. I think she wrote a report about that, that went to the College Eight provost, and then I think maybe to the chancellor (it maybe didn't even get that far), that we would set up this apprentice program that would formalize and solve, in a way that was somehow acceptable, really, within the university structure, the full-time participation of people who weren't enrolled as students.

My idea was that if we did that, then the facility would be there for the more casual participation of students. Since I had been a student, I always wanted to preserve the opportunity to participate in the Garden and Farm for students. The Certificate Program (apprentice program) did solve, in a more substantive way, for the first time in the whole history of the project, how we would maintain the core structures of both the Garden and the Farm and have it be available for students. So basically I created the content for the apprentice program, but Louise developed the rationale and made it happen administratively. That was a key thing for the project's future. That was the piece that provided stability for the place that hadn't ever been there before.

The other thing I think that probably really set it firmly up was the subsequent donation that Alfred Heller did make when [Stephen R.] Gliessman²⁰ came—the same amount of money he wanted to give when I was there—but it was for a more structured purpose that was consistent with the university, so it validated the idea of the place as an intellectually justifiable activity. It marked the transition from Alan Chadwick, who wasn't interested in technical issues. He was interested in art, the art of horticulture. It wasn't ever the science of horticulture; it was always the art of horticulture—opera and ballet and painting. It transitioned from a focus primarily on the aesthetic character of life, to the more technical science, through that period of time that I was there. It couldn't have happened with me. I had to be gone for the transition to be possible, because I was still a Chadwick disciple.

Starting the Apprentices Program

Anyway, we established the apprentices program. That almost didn't get off the ground. I had been getting feedback now from people like [Santa Cruz County extension adviser] Ron Tyler, and I was more open to other influences about how things could be done than Alan had been, obviously. It was a different setting. It became clear we needed some more formal instruction, soil science. Herbert Koepf, who had been there several times, said, "I have a student who is well trained in agriculture sciences at Emerson, who's been studying with me, and he could teach the soil science part of this and help you with the apprentices program." His name was Pierre Ott.

So Pierre came over in the spring, just before the apprentice program started, and looked around and decided he was willing to jump in and come over and do this work. But to do that, we needed some money for him, because he couldn't live for free. He was married already, and they had a little baby on the way, he and his wife, Marie-Christine. We asked McHenry through Elizabeth to put that money in the budget, and somehow or other it didn't end up in the budget. So it's late June. (I remember this very clearly.) It was a Friday, and it was the last week before the budget had been finalized. It didn't seem as if we would have the funds to hire Pierre and start the apprentice program after all. My wife Beth said, "You know, you ought to call up McHenry." "But it's ten o'clock on Friday night." "Call him up. Ask him again." So I did. And we talked about it. He said, "Okay, I'll find the money out of my discretionary funds." And he did. I wouldn't have called without Beth suggesting it. All along, in that whole period, there were these moments where the place just hung by a thread.

Farmer: But people believed in it.

Kafka: Yes, they did. But when Alan left and then we just got started—that was really—there was no guarantee that it could survive. There was that little mini-crisis with the Home Farmers, and we got through that, and somehow we got the apprentice program started. It was all by hook or by crook—soft money, year-to-year uncertainty. But somehow or other, it got through. So we got the money, wrote to Pierre. Pierre said, "I'm coming." He came. Then six weeks later, we picked his wife up at the airport with six-week-old baby Valerie in a basket.
(laughter)

Farmer: Oh! (laughter)

Kafka: We're still friends. In fact, I'm going to see them next week in France.

Farmer: And the baby is?

Kafka: She's thirty-something, now. Thirty-three, thirty-four.

Farmer: Wow.

Kafka: Yes, Valerie. So anyway, Pierre came, and he was great. He had no problem with the six-day-a-week job, with working from light to night. He'd come out of rural France, Alsace. He had been around farming all his life. He had a five-year degree from an agricultural, technical university in Angers, and then he'd also been in the biodynamic agriculture program that Koepf had at Emerson College. So Pierre came, and he helped with all the instruction with the apprentices, and he ran a formal soil science course in the winter quarter.

The apprentice program that I started was a twelve-month program, because there wasn't any way to learn enough gardening in less time, in my view. It was a minimum. It was six days a week, and full time, all the time.

Farmer: Did people live in tents?

Kafka: They lived in various places, wherever they could. Some of them had enough money— They had to pay a fee. It was a modest fee. They had to apply, and we selected the people that we wanted. Some of them lived in town. I can't remember, I think we still had some of the teepees that some of them may have lived in. By hook or by crook, you know?

Farmer: Yes.

Kafka: They had to work six days a week, and they had to work in both the Farm and the Garden, because by then I was running both. When Alan left, one of the people who was around in the area, who had worked with him in '68 or so, was Gilbert Silva. He was asked to run the Garden, and he did for a while. Then he left. Then for a while, my wife ran it, Beth, with the help from Kermit, who I mentioned earlier, and Michael Zander, who had come back to school. But when we had our first baby in '73, a few months before the apprentice program started, I took on both projects again. We used the apprentice program to integrate the operation of both again.

Anyway, apprentices had to work at both places. They also were required to create either a garden or some other element, make something creatively out of their own ideas (of course we had to approve them, which we'd talk about), but the idea of creativity was really quite important. There were little garden areas that they would design and do themselves, with help. I mean, we'd propagate everything and all—

Farmer: Is that how the comfrey got started?

Kafka: No, at one time comfrey was the greatest thing since forever, for eating and for composting. Alan introduced it. Of course, it ends up being toxic and you're not supposed to eat it.

Farmer: Oh! Didn't know that.

Kaffka: Oh, yes. It's got some nasty secondary compounds in it. It was planted around the Garden at one time. It was this idea that somehow there's something vital about it. That wasn't a student project. That was prior to the apprentice program. It was in the old garden.

We had three apprentice classes. After the second year was over, Pierre went back to Europe. He wasn't making very much money, and it wasn't going to ever be his permanent life. One of the apprentices that had been in the program, Jim Nelson, was particularly adept, and so we asked him to stay for the third one, and he handled the soil science part.

Farmer: Is this "Big Jim?"

Kaffka: Big Jim. He helped with the third program.

Farmer: And what about Dennis Tamura?²¹

Kaffka: He had never worked in Santa Cruz, to my knowledge. He worked with Alan elsewhere.

Farmer: Oh, up north, okay.

Kaffka: Yes. He showed up after I was no longer running the place. I should say that before Pierre got there and while there were still some of the Home Farmers, a fellow named Tom, I think, Hopkins came around. He was a very skilled builder, and so we had the campus architects—Chuck Carr, I think, in particular—design the Farm Center, the main building on the Farm. And this guy, who I paid out of funds that we had voted for as students.

Farmer: Yes.

Kafka: We bought supplies, and this guy pretty much single-handedly built that building. I wish I could remember his last name. I can see him, but I just can't remember his last name, but he did a great job.

Farmer: Did he use power tools?

Kafka: Yes. Oh, yes. It was a nice building. It's still apparently used. He did a good job with it. I'm sure we had additional help. We got help with plumbing and wiring and stuff like that. We had a little office there, which was one of the cabins similar to the one up at the Garden that Dean McHenry brought down to give me a place to have an office. During the apprentice program, we actually had a secretary, named Suzie.

Farmer: Suzie what?

Kafka: Oh, Connors, I think. I saw her at the reunion. She changed her name subsequently to Sage. She came up and said hello at the reunion. It was nice to see her. She worked with me for three years.

Anyway, we had those apprentice programs. We did various things with the upper garden. The upper garden was devoted primarily to ornamentals. There weren't very many vegetables there. I decided that we would have all that food production down at the main Farm and not so many ornamentals.

Farmer: And did you have a goal for the food, what you were going to do with it?

Kaffka: We put a little wagon, a Conestoga wagon, at the foot of the campus and started to sell [the produce] to try to generate income. We also raised oat vetch hay, and had a contractor come in and cut hay, and we sold the hay for income. That was on parts of the middle of the place that hadn't— Originally the whole middle of the Farm was to be hand-dug beds. That was the design from France, from Versailles. But it ended up being too much. When Pierre was there, we got a little Farmall Cub and we had the other tractor as well. Pierre rebuilt the Farmall with some of the apprentices that wanted to— So they got a little extra work that way. We also were keeping livestock and raising animals.

Farmer: What kind of animals?

Kaffka: Goats. A few pigs were raised, slaughtered and cured on the Farm. And chickens always. The apprentices would, the ones that wanted to, would help with the goats.

Farmer: But it wasn't particularly vegetarian, then.

Kaffka: Oh, no. Well, animal manure certainly is valuable for growing crops organically, and animals eat things that are waste products otherwise, or things that grow on land that can't be used for food for people—part of the cycle of life. I don't think vegetarianism is very ecological, actually. So anyway, no, it wasn't vegetarian. Alan wasn't a vegetarian. We always kept chickens at the Garden. He liked meat. There was always meat around.

So we ran those three apprentice programs. And then by the end, by 1977 or so, Ken Norris started to have an interest in the place. Ken was a very charismatic

man and a first-rate scientist.²² I ended up taking a class from him, too. But I don't think I got along very well with him. It wasn't easy—I had no training in horticultural science and no training in biological science. I was very much a product of my experience with Alan Chadwick, and I was very clear about wanting to be true to what I had learned from him and how I learned it. I was all over the place. I mean, my role had been so fundamental in those periods. It wasn't going to be possible for that place to grow and to become maybe a more traditional—I can't say it's really a science-based program, but in any case, where a more traditional university kind of life took place. So it was clear to others, including Louise, that probably they needed somebody else at some point. That was hard for me.

Moving On

Farmer: Oh, I bet.

Kaffka: It was hard for me. But it was absolutely necessary.

Farmer: And you're still in your twenties, right?

Kaffka: Yes, I'm twenty-eight or something, twenty-seven.

Farmer: It's been pretty much your whole career.

Kaffka: The only thing I know. That was hard. Sure, it was hard, because I loved it, even though it was still six days a week. There was never any easy way for people to leave that place, ever. Maybe not still. Actually, I have to say I'm remarkably impressed with Orin having survived there for thirty years. I don't

understand that. [Laughter.] Good for him. Good for him. Anyway, it became clear that after the end of '77 I'd have to find something else to do, which I did.

I had to go through kind of a reevaluation period, and went to Europe to look at both horticultural training programs in England, and also see Herbert Koepf in Germany and look around at some of the agriculture there. I made my first visit to the Talhof Farm, which was probably the second-best organic farm in the world at the time. I don't know what the first one was, but there wouldn't be very many better. I had to decide whether I was going to stay in horticulture or go into agricultural science in a more academic manner. I chose to go into a more academic direction. So I went back to school for a year and a half, took biology, chemistry and math classes.

Farmer: At UCSC?

Kaffka: Yes. I watered the Garden on the weekends, so Orin could have some time off, Sundays anyway. I was around with Jim [Nelson], but I didn't do too much.

But I carried out the first research project ever at the Farm, or the Garden, as a senior thesis, with Kenneth Thimann being my mentor. It was an agroecology project, looking at the relationship between the sources of soil fertility and the amount of soil fertility and the occurrence of insects on collards. I finally published a little bit of that material a couple of years ago, something I wrote for an IPM [integrated pest management] meeting. I used a little bit of it. It was a senior thesis. I got honors for it.

Thimann was a wonderful gentleman. He was a great guy.²³ I had a lot of fortune in Santa Cruz about whom I knew—from Alan, certainly, first and foremost; to people like Norman O. Brown, who I kept up with; and Donald Nicholl, and Paul Lee, and McHenry, who I think was a great man²⁴; and Thimann, who was a great man. I was very fortunate.

Pursuing a Career in Agronomy

Anyway, then I got a Fulbright and I finished that second bachelor's degree, and with Herbert Koepf's help found a spot in Stuttgart at Hohenheim University for a year, learned some German, took some classes, and then got into graduate school at Cornell [University] in ecology, but then switched to agronomy and got a master's and Ph.D. My first job was directing a nonprofit foundation in New England where we tried—still trying to kind of think holistically about nature and the landscape—tried to develop some alternative models for smaller-scale dairy farming.

Farmer: What was that called?

Kaffka: It was called the Sunny Valley Foundation.²⁵ It's still there, but as a land trust now. My program was overly ambitious for it. We had three dairy farms. We did research on rotational grazing, the first in the Northeast, some formal research. We got funded from the National Research Institute to do some manure management work. We had a major regional conference on the future of smaller-scale dairy farming in New England, and that included artisanal cheese making.

Farmer: Is this USDA funding?

Kaffka: The NRI grant was USDA funding. See, these New England dairies were too small to survive. They couldn't compete on a price basis, so you had to add value to the milk. How do you do that? Well, the best cheese market for European cheese imports in the U.S. is in the Northeast, and so the way you might do that is by having all these little artisanal cheese factories. There are many small vineyards and wineries in California; maybe you could have artisanal cheese places develop in New England, where the family, instead of having the wife drive [a] school bus or work in town to make enough money to keep the dairy farm going, they would invest family labor in cheesemaking. So we had published a little book about it.

Farmer: Did some of the farms survive?

Kaffka: We developed one of our farms, but the funding was always short, and I wasn't very good at fundraising, I think, there. In any case, the opportunity came to return to California and the job at UC Davis, which I was fortunate to get.

Farmer: And how long ago was that?

Kaffka: 1992, I started. So here I am. I was hired as an extension specialist. I don't have formal teaching responsibilities. The Division of Agriculture and Natural Resources of the University of California has a vice president in Oakland, and it's a statewide research and outreach organization. It's essentially the land grant institution operating in California. Ron Tyler, whom I mentioned earlier, was an extension adviser in Santa Cruz County. He would work with a specialist in fruit trees at Davis, who I had also visited when I was looking for varieties. His name was Jim Boutell. There're many other people there now who are my colleagues.

Then there are faculty that teach formal classes and wouldn't have an outreach role. I was hired as an extension specialist, with certain commodity responsibilities I didn't know anything about at the time. I had to learn on the job.

I've worked on sugar beets, and oil-seed crops like safflower, and now canola. And I also have different, more broad interests, so I did a lot of water quality work in the Upper Klamath Basin, the Tule Lake Irrigation District. I have projects looking at the recycling of saline drainage water for forage and livestock production (getting back to grazing again) in the San Joaquin Valley, trying to deal with the salinity drainage problem. And I'm the director of the long-term Research on Agricultural Systems [LTRAS] project, which is the only research project in the University of California focused specifically on sustainability per se, and the meaning and nature of sustainability.

Sustainable Agriculture

Farmer: So, what is the meaning of sustainable agriculture to you?

Kaffka: To me, it's more a process term than something that's absolute. It's very much about some future state. It's something that we would like our agriculture to be in the future, something where we would like it to still have certain characteristics and provide us with certain goods and services. It also involves ideas about how farming ought to be done, who should do it, how the benefits should be distributed. Some people have very clear ideas about what they prefer. I have less clear ideas about what I prefer now than I did in the past. Things change.

One of the things that's changed most radically in the last few years is the idea that we would now use crops and crops residues and forestry residues for fuel, for energy. Some people had been working on that idea for decades, but it became much more apparent that it made sense, from an energetic perspective, more broadly only in the last few years. And it's had a transformative effect on agriculture, on commercial agriculture. So for instance, my master's thesis at Cornell, I worked on describing—which is what led to the publications and book with Herbert Koepf—I went back to Germany while I was at Cornell for periods to collect data about the Talhof Farm. The Talhof Farm had been biodynamic, in the real Steiner sense, since 1929. And what that means is that Steiner talked about how the farm should be considered an organism, a unit, something that's integrative in its own right, with as few imported nutrients as possible, as much self-sustaining as possible. The first person to articulate that in a formal way was Steiner, anywhere that I know of.

So there was the Talhof Farm, which is a dairy farm and also produced crops and had a market garden. It wasn't owned by the farm family; it was owned by a wealthy German industrialist who was an anthroposophist. All the bookkeeping was done by the corporation: inputs, outputs and everything, so they were relatively well certified, the values. I was able to collect data on the farm from 1950 to 1980, on all the inputs and outputs and all the energy use and everything. Starting to be a scientist, I was interested in the question: Are organic farms sustainable? Can they persist over time? And what happens if they're really organic, and they're not subsidized by conventional agriculture for their inputs? If you have a balanced farm, you don't have extra manure. You have the right

amount of manure for your farming system, so you can have a small market garden in a balanced farm for vegetables that is a byproduct of the fertility that's generated by the livestock cropping system with leguminous forages that the cows eat. That's a natural feature of a livestock system, and the manure and the legume-based fertility then benefits your exported food crops as well. But you don't have money to run just a separate vegetable market garden like we do in California. Our market gardens are subsidized from some source, where nutrients are brought in somehow, even here on the campus. And that comes somewhere from fertilizer, somebody using fertilizer who has surplus manure or whatever, because they use fertilizer.

This biodynamic farm had been, since almost 1930, organized around the principle of minimized inputs. The question was: What had happened with yields over time? We were able to document what had happened with yields over time. I still think there's no other piece of work like it anywhere in the literature, where you have a time series of data like that.

Farmer: What *did* happen?

Kaffka: You really want to know?

Farmer: I do.

Kaffka: You better read the paper. (laughter)²⁶ No, I'm teasing you.

Farmer: (laughter)

Kaffka: Well, the farmer, Friedrich Sattler, he was a tremendously hard worker. He was quite good with animals. He liked the dairy cows. So he had developed quite a good herd of mixed—it was a mixed breed, [*Deutsche Fleckvieh*] was the breed. It looks like [Simenthal]. It looks like a beef animal, by American standards. They were milking them, and his milk yields had increased over time. I documented all the changes over that period, and the crop rotation. They had a thirteen-year crop rotation.

Farmer: Thirteen years.

Kaffka: Yes, legumes were in there about seventy percent of the time. They had chickens on the side. They kept a pig or two. Everybody keeps a pig. They had a market garden and a market gardener, [Hilde Pfeiffer]. The family had— This is the remarkable thing about them: In some ways, I regard them as somewhat heroic, because they lived their beliefs. They were anthroposophists; they really believed in biodynamic farming, and they lived those beliefs as the basis of creating that farm, making that farm an organism that was sound and wholesome and healthy. They didn't draw a lot out of the farm in terms of income. They lived very simply. But they were living very much trying to give expression to what they believed in. I saw something quite beautiful in that. That farm was a remarkable place. Then the interesting part of the work was: Well, how does this stack up? Because in the seventies we had had the first oil crisis, 1973, remember?

Farmer: Yes.

Kaffka: So energy use in agriculture was a big deal when I was in grad school. So the question was: How did it stack up energetically with, let's say, some comparison farms in New York State, which had somewhat similar topographies and so on, and then also some bigger farms in New York State, which are on better ground? They used rotational grazing at the Talhof Farm, which wasn't really widespread in the Northeast at the time. It is now, but it wasn't then. I saw a lot of things that looked like they were pretty good.

Well, it was actually as good, or better than small farms on equivalent landscapes in New York State, from an energetic perspective, in terms of energy input per unit of energy and milk energy output and so on. But it was not as efficient as the larger-scale, western New York farms that had big, kind of industrial organization. And that's really basically true. That's basically true. If you just look at energetic efficiency—commercial agriculture and especially the most efficient forms are going to generate more energy than they take in, compared to lower-output, lower-throughput organic systems.

One of the features of an organic system, except for very intensive market gardens, is the fact that the nutrient cycling rates and so on are lower. That makes them generally a bit more benign (though not always) with respect to nitrate loss and things like that. But it doesn't mean that they're more energetically efficient or economically efficient. They're not. So that's why organic farms are not going to be sources of biofuel feedstocks. That's one reason. Also, because if they're a balanced farm, they don't have surplus carbon.

That's a long way around talking about, what do I think about this notion of sustainability. Well, I'd like you to be a dairy farmer. I'd like most people to be small, integrated dairy farmers. That would be great. But we have lots of objectives in society, and they're changing, and they're subject to change in ways that we can't imagine now. Things will happen in the next five years, or ten, and certainly in twenty, that will change our idea about what we value, to some degree. So I see the notion of sustainability as a process term. We do our best to try to define what we mean by it. With reasoned discussion we need to support our understanding with some quantitative information about the effects of cropping systems on soil quality and the trends and the consequences of those changes over time. That's what that long-term research project at Davis is about. But that information is a part of what goes into a larger discussion of society's values. Agriculture is a part of society. I mean, we need to eat. There're always going to be alternative views about it. Some people say that if food costs more money, then the poor would suffer. Well, probably. But then there are others who argue, well, food is undervalued, and if it costs more, then we could support more people in market gardening and small-scale organic farming. So who's correct? Well, probably both are correct. So when it comes to the notion of sustainability, you have incongruent or different perspectives that are based on reasons that are incongruent with each other, that motivate people's preferences for what they consider to be sustainable.

Farmer: So it sounds like you've got a career forever, working on this stuff.

Kaffka: Who, me? I've got more than I can do.

Farmer: Right now at Davis, you're running a center.

Kaffka: Yes, that's right. Most of the focus is—it's really essentially equivalent to the directorship of this long-term research project. I'm now also the head of the new University Bioenergy Work Group, which is focused on biofuels. I'd particularly like to see us use some of our wastewater and lower-quality land for biofuel feedstock production and try to solve two problems at once. It's challenging, because there's things like selenium and other issues, and the difficulty of controlling salt and the expense of it that are involved, but I think it's one way to proceed. That salinity is a factor that certainly affects sustainability in a fundamental way. It's not a social issue. It's very much a real technical issue in the sense that if things salinize, or if groundwater is too polluted with salt, then that means that it's going to be harder in the future to do the same things that we do now. You can have salt toxicity for things that are not tolerant of salts.

Farmer: And then there's no way to turn that around?

Kaffka: Well, you have to put a lot of water on and try to leach it, but then the salt has to go somewhere, so what do you do with it? Those are difficult issues. They affect not just California, but all semi-arid regions of the world. I've traveled quite a bit through my work, much more than I ever thought I ever would, and that issue is worldwide, of worldwide importance. It affects the sustainability of food production everywhere in the world. That's a different sense of sustainability than, for example, whether you garden organically or not. So is whether farmers are going to have water in the San Joaquin Valley, or whether the water will be left in the [Sacramento] Delta. If they don't have water,

they can't farm. Their farming is not sustainable without water, so the politics of water affects their sustainability. But that's a different sense than you might use it if you were talking about whether double digging is a sustainable practice.

Farmer: So if you could sum up your trajectory out of UCSC into—

Kafka: Well, I'm profoundly grateful for those experiences. They're unique, and they've formed me in very fundamental ways. But I've also tried to become a scientist and more open, at least more open-minded in my thinking, about what it is to do agriculture, and what it might mean to farm sustainably.

Farmer: When you were at the fortieth reunion, what was your impression of the Farm?

Kafka: I think it is in better shape than when I ran it. They've done a wonderful job there. It's interesting to me that some of the things that I taught that were, I thought, central to gardening—you know, raised-bed gardening, as Alan taught it—are no longer practiced there. They're not part of it any more. You have carrots in rows; you have drip lines down the beds, a few things like that.

Farmer: They do have a CSA [community supported agriculture], so there's been a demand factor.

Kafka: All that's the same, though we didn't have a CSA in the Garden; we just sold vegetables to the Whole Earth Restaurant and on the stand. But a lot of the vegetables that were produced, and the fruits, were consumed by the people doing the work. [Chuckles.] So there weren't huge surpluses.

I hope that I continue to make a contribution to social well being from my work as an agronomist. I'm mindful of all of these issues, and I have these exceptional experiences that contribute to how I think about farming and—not so much gardening anymore. I think it's important to be clear minded and clear headed about the relative benefits of any one particular set of practices, and not to assume too much without measurement. There's a way of knowing intuitively and personally, and then there's public knowledge—public knowledge based on measurement and reason and proof. They're somewhat different. One of the things that you see or hear often is that people assume that if they garden organically, or they farm organically, that somehow or other their farming is sustainable. That means it will be able to continue over time without harm. It's very difficult to make an assumption like that, because you're talking about an unknown future. And the reason you assume it is because you follow certain practices. By following the practices, by definition you're sustainable. But that's circular. That doesn't give you any other, more objective way of deciding whether it's sustainable or not.

It's not necessarily that that's bad that people farm or garden based out of a set of beliefs. I think that's an extraordinarily valuable contribution to the larger, if you will, ecology of human life. The fact that people are struggling and learning how to grow crops still based on a set of rules that they keep for themselves, or limitations on what they'll use, and how they'll do it, more biologically based, is valuable because the production of food and ornamentals and fiber and livestock products is an ongoing thing that we should be learning about constantly, and

they provide important examples. But I'm very clear that that will never be the basis for food production in the modern world.

Farmer: Too many people?

Kaffka: Too many people. There'd be a lot of Asians that would starve. There's a nice old book called *Farmers of Forty Centuries: Organic Farming in China, Korea, and Japan*, which was written by a USDA scientist named Franklin [Hiram] King who went to Korea, Japan and China at the beginning of the twentieth century and wrote about it.²⁷ If you read that book, you realize how hard life was, how labor was so unremitting, and how essentially they were so nitrogen limited in their production systems. There was no fertilizer, no subsidy from anywhere. Human wastes were recycled. And even so, it was just hardscrabble, everything. Constant labor and poverty.

We take a lot for granted. Organic farming as we know it now is really in some ways a reaction to the kind of economic pressures that changed farming in the twentieth century, and a product of that, and to some degree dependent on it, particularly for fertility.

Farmer: I'm also thinking of the amount of energy each of those young people needed to work on the Farm up there.

Kaffka: They were pretty thin. (laughter) Sugar is really valuable when you're calorically limited. It's a very good food when you're calorically limited.

Farmer: (laughter) Whoa.

Kaffka: Yes. So, yes, I don't know. What do I think about sustainability? To me, it's a dynamic term that we evaluate in individual cases and try to use our research tools as we have them, not simply in science, but also perhaps in social science, to try to evaluate, but which we can never definitively or finitely define.

Farmer: All right. Great. Thank you, Steve.

¹See Randall Jarrell and Irene Reti, eds. *The Early History of the UCSC Farm and Garden* (Regional History Project, University Library, UCSC, 2003) for an oral history with Paul Lee.

<http://library.ucsc.edu/reg-hist/farmgarden.html>

²See the oral history with Orin Martin in this series.

³Jack Wagstaff was the campus architect.

⁴See the three-volume oral history *Dean McHenry: Founding Chancellor of the University of California, Santa Cruz* available on the Regional History Project's website at <http://library.ucsc.edu/reg-hist/mchenry.html>

⁵Norman O. Brown was a well-known philosopher who taught at UC Santa Cruz. He was the author of *Life Against Death: The Psychoanalytical Meaning of History* (Wesleyan University Press, 1959), *Love's Body* (Random House, 1966), and many other publications.

⁶Alan Chadwick was born on July 27, 1909 and died on May 25, 1980.

⁷The Anthroposophical Society was founded by Rudolf Steiner in Switzerland in 1923. According to their website: "It seeks to support individuals who are working on their own inner development and who wish to bring the fruits of that inner work to benefit the wider world. As a modern path of knowledge, its doors are open to all who seek its approach and who wish to support its activities. Today, anthroposophical activity is alive in communities around the world. During the course of his life, Steiner collaborated with doctors, therapists, farmers, business people, teachers, scientists, and artists."

<http://www.anthroposophy.org/PortalCH/AboutUs.php>

⁸The Back Forty Reunion was held on the weekend of July 27-29, 2007 at UCSC. See

http://www.ucsc.edu/news_events/text.asp?pid=1470.

⁹See the oral history with Beth Benjamin in this series.

¹⁰See the oral history with Jim Nelson in this series.

¹¹Lord Walter James Northbourne, *Look to the Land*, (JM Dent & Sons, 1940, Republished Sophia Perennis, 2005).

¹²See the oral history *Harold A. Hyde: Recollections of Santa Cruz County* for Hyde's recollections of the early history of the UCSC Farm and Garden at <http://library.ucsc.edu/reg-hist/hyde.html>.

¹³See the oral history with Heidi Skolnik in this series for more about the Home Farmers.

¹⁴*The California Fruits and How to Grow Them* (Pacific Rural Press, 1914).

¹⁵Martha Brown is senior editor for the Center for Agroecology and Sustainable Food Systems (CASFS), and has been a key staff member for many years. She edits the newsletter for CASFS and helped write the training manuals for CASFS apprentices.

¹⁶Stanley A. Cain was a leading ecologist who served as an assistant secretary in the U.S. Department of the Interior in the 1960s. He was an adjunct professor of environmental studies at the University of California, Santa Cruz, and chairman of a committee that planned College Eight, which opened in 1972 with an emphasis on environmental studies.

¹⁷"The Lesson of a Garden," by William Bronson, in *Cry California*, Winter 1970/71, Vol. 6, Number 1, pp. 4-16.

¹⁸ See the oral history: Irene Reti, editor, *The UCSC Arboretum: A Grand Experiment* (Regional History Project, University Library, UC Santa Cruz, 2007) <http://library.ucsc.edu/reg-hist/arboretum.html>

¹⁹ See "Students Go Back 100 Years to Farm at UC Santa Cruz," *Los Angeles Times*, September 10, 1972, p. B."

²⁰ See the oral history with Steve Gliessman in this series.

²¹ See Randall Jarrell and Irene Reti, eds. *The Early History of the UCSC Farm and Garden* (Regional History Project, University Library, UCSC, 2003) for an oral history with Dennis Tamura. <http://library.ucsc.edu/reg-hist/farmgarden.html>

²² See Randall Jarrell, ed. *Kenneth S. Norris, Naturalist, Cetologist, Conservationist, 1924-1998* (Regional History Project, University Library, UC Santa Cruz 1999), <http://library.ucsc.edu/reg-hist/norris.html>. Available through the University of California Press.

²³ See Randall Jarrell, ed. *Kenneth Thimann: Early UCSC History and the Founding of Crown College* (Regional History Project, University Library, UC Santa Cruz, 1997) <http://library.ucsc.edu/reg-hist/thimann.html>.

²⁴ See Randall Jarrell, ed. *Dean McHenry: Founding Chancellor of the University of California, Santa Cruz* (3 volumes, 1972, 1974, 1987) (Regional History Project, University Library, UC Santa Cruz) <http://library.ucsc.edu/reg-hist/mchenry.html>.

²⁵ See Stephen R. Kaffka, ed. *Sustaining the Smaller Dairy Farm in the Northeast: Proceedings of a Conference Sponsored by Sunny Valley Foundation, Inc., Litchfield, Connecticut, October 4-7, 1987*. (New Milford, Conn.: Sunny Valley Foundation, 1989).

²⁶ See Kaffka, Stephen and Koepf, Herbert H. "A case study on the nutrient regime in sustainable farming," in *Biological Agriculture and Horticulture* vol. 6 no. 2, 1989, pp. 89-106.

²⁷ See Franklin Hiram King, *Farmers of Forty Centuries: Organic Farming in China, Korea, and Japan* (Courier Dover: 2004). Originally published in 1911 by the author.