

Cornell University. Ithaca, 1959-61.

The town of Ithaca is very hilly with Cornell University situated at the top of the hill. The town is divided into two parts, college town, surrounding the campus, mostly run-down apartment (student housing) many of which are potential firetraps and larger clap board siding houses running all the way down the hill to the downtown. College town was also full of Pizza joints, small groceries, and laundromats. Here and there, particularly along the canyons were spacious stone or brick houses built in the 1880's-1900. These were houses belonging to faculty and were much admired by Mimi. In those days downtown Ithaca was mostly redbrick, and just a few main streets with one large department store. There was so much snow and ice during winter that driving into town was extremely hazardous, and vehicles required chains in the winter months. The campus was situated on top of a very steep hill. Close by are spectacular parks with cascading waterfalls such as Buttermilk Falls and Tremens State Park. The city is 200 miles North of New York City the southern end of one of the Finger Lakes, Lake Cayuga.

Unlike our first attempt at living in Ithaca, when we could not find suitable housing, this time we had applied for and received married student housing. Cornell Quarters was a large area of small duplex huts left over from the US army. The huts were small, either one or two bedroom with a small living room with kitchen facilities along one wall. To us they were heaven since they gave us a sense of independence and some privacy, although there were times when we could hear the next-door couple clearly arguing or having sex. We became friends with a number of our neighbors, mostly graduate students and I walked into campus every morning with a student from Ghana, whom I suspect became later the minister of agriculture. The whole area was watched over by a super-intendant or janitor, a Mr. Bell, a kind, middle-aged man who offered after a few months to teach me how to drive our first car.

Even though I had a fellowship, which covered part of my expenses, we both needed employment to sustain ourselves. Mimi found a job as a lab technician in the chemistry department working with Dr. Harold Scheraga, considered one of the great protein

chemists of his time. She was an assistant to his graduate students and post-docs, studying the enzyme ribonuclease's physical structure. I found a part time job in the main library, cataloging books dealing with Jewish subjects. I was hired because I was able to read Hebrew. Later on I dealt with cataloging government documents. This latter position was very boring but it did bring in minimum wages.

I also worked part time for Dr. Marble in the poultry husbandry department, recording weights of eggs and matching these to specific breeds. I occasionally did some tractor work for Dr. Baker, my advisor in the department of Poultry Husbandry. Dr. Baker was what could be described as the "typical American", big and loud. His specialty was marketing and he organized and ran the Cornell University Booth at the New York State Fair. We students were expected to man this booth during the State Fair and persuade the public to buy chicken hot dogs, which at that time were quite a novelty. We also participated in poultry judging. I enrolled in a class on this, and found it very difficult to feel up a hen or cockerel and judge its health and quality. In fact it was poultry judging which made me think twice whether I was in the right field. I could tell the difference between a skinny chicken and a fat one, but to judge by feathers and look the chicken in the eye and judge its health was beyond my abilities.

Dr. Baker in his retirement opened a 30-acre farm of gardens and nursery stock, as well as a café in Ithaca. This is probably the same farm that I plowed as an undergraduate. On reading his obituary I realize he was quite a force in the marketing of chicken meat, introducing chicken nuggets as well as chicken hot dog and ground chicken meat.

I received an excellent education in Poultry Husbandry, and I was a very good and attentive student. I attended a class in avian anatomy taught by a famous poultry geneticist, Robert Hutt. I knew the name of every bone in the chicken and every hole in that bone by the time I finished the course. I still have somewhere the term paper I wrote (probably the first in my life) on the feather and its development. Mimi did the much-needed drawings for the paper. I actually found feather development and structure fascinating. Knowing all the bones and joints of the chicken has helped with carving at the table. Unfortunately Turkeys are not built the same way, and they still give me difficulty.

I completed courses in agriculture economics, which really was general economics, a course in basic biology, which I remember included the preparation of microscope slides with insects and plant material, courses in Mendelian and population genetics, as well as organic chemistry and some math (differential equations). I must admit I remember very little of the course work. However four of the faculty influenced me greatly. Dr's Marble, Hutt, Baker, and Everett who taught genetics. Dr. Marble took me under his wing, I suppose, because of the letter of recommendation from Dr. Ben Adam of Haifa. I recently learned that in 1955 he spent several months in Israel on a special assignment as a consultant to the Israel Ministry of Agriculture in planning poultry breeding programs. He was very nice person to work with, and I must have taken his class, probably in poultry breeding. Dr. Hutt on the other hand who taught avian anatomy as well as genetics was very exacting, and a strict disciplinarian. Dr. Everett, as I will discuss later guided my graduate school application. Dr. Baker as mentioned above was my advisor.

Another feature of Cornell avian life was the ornithology center. It was situated outside the campus in Sapsucker woods. It was a place to sit and watch the birds, and had wonderful exhibits. We have been back a few times since I graduated and we always head to this and to Cornell Plantations, an area of beautiful extensive gardens and green houses. Some of the major attractions of the Cornell campus were the extensive flower gardens. The campus was very beautiful, not so much the actual buildings of the campus, which in these days tended to be mock -Gothic, or built in the utilitarian style of the turn of the 20th century but for natural beauty. In particular there were stunning flower gardens around Home Economics and near the President's House. The campus, or at least part of it was within walking distance of Cornell Quarters, and since we did not have a car during the first year, and I do not remember a campus bus, we must have walked every day. The campus landscape is wild with waterfalls, and lakes formed by glacial movement. Apart from the, canyons and water falls on the campus there is a small lake that in our time had a small restaurant where one could have a snack or cup of tea. This was Beebe Lake and Noyes Lodge. It was not too far from the chemistry building and we would meet there for lunch, and remark on the other students who appeared too poor to even buy tea, and would bring their own tea bags. One could sit for hours looking at the lake, and the waterfalls. Noyes

Lodge is no more and has been turned into a language resource center Unfortunately a lot of that beauty has been spoiled by expansion and the crowding of buildings. I was at Cornell, a few years ago, and although still beautiful, the campus was ruined by excessive over building. We took our children and grandchildren to see the campus, 50 years on. It no longer seemed as beautiful as I remember it. I have been in the interim and realized then that I did not know the campus well, but only a portion of it, mainly around the Ag school and central campus. I was unaware of the large area of student housing.

The winters in upstate New York are unbelievably cold. Ithaca is in the Snow Belt and it is no exaggeration to say that there was 3-4 feet or more of snow on the ground all winter long. We would have ice form in the corner of our little hut in Cornell Quarters. To get to the school, we would wrap ourselves up with multiple layers of clothing and run from building to building until we arrived at the correct one. From Cornell quarters we would rush past the cattle barn, famous in summer for its dairy and ice cream, through the Ag school, and eventually reach the chemistry building, frozen stiff. For the first year we did not have a car or washing machine, so that we would lug a load of wet laundry in a basket or bag through the snow and bring it back damp from the laundromat. In the spring this would be hung out to dry, a very European idea

The Chemistry building where Mimi worked was not in the Ag school and had just moved into a new building near the lake. This was an architectural experiment in which all the pipes, made of a transparent plastic were in the open, and one could see the drainage from the sinks flow through them. It somehow reminded me of the Pompidou center in Paris.

We had an active social life. It centered mostly around Israeli students on campus. Most were graduate students. It is quite possible that Benyamin Natanyahu would have been present since his father was on the faculty and he grew up in Ithaca. We were friends with David and Esther Prihar. David had shown us around the first time we visited Cornell and introduced us to my mother's cousin Ralph. Through David we met other Israeli' students and hung out with them. We both did not feel at home yet in the US, and of course still thought of returning to Israel as soon as possible. Through Mimi's work we met Jan, another lab technician and her husband Ed who was physics major. They were a couple

from some small town in Virginia. I think they thought us very exotic, having never met Jews before. We would go out together to restaurants and each other's house went to our first football game together and we have maintained contact by Xmas cards to this day. Ed is I believe one of the inventors of the Star Wars Missile shield, proposed during the Reagan era. He has been very successful as a missile engineer, and Jan has been involved in various businesses. I wonder whether he was involved in the development of the Iron Dome. They have now retired to the quietness of Maine.

I have mentioned previously my cousin Ralph. He was the son of my grandfather's brother, thus really a first cousin to my mothers. He and his wife were very Irish, from Dublin, and had quite a number of Irish friends. They were a happy lot, often a little drunk, and to us a bit crazy. They lived in College Town; in an old wooden Victorian style ramshackle building that I was sure would catch fire one day. I never expected to see it still standing and looking as dangerous as it did 50 years ago but there it was a few years ago, still the same. We often went out to the only movie house in town, and to the few cafes on the main street. While we were in Ithaca their first child, Susan was born and we were the first baby sitters. Susan of course is now a mother of two children, and lives in the Washington DC area. Ralph was a graduate student in soil microbiology, and later was hired to an endowed chair in the department of engineering at Harvard.

After one year we bought our first car and I learned to drive. It was a white and red Buick, quite a monster by today's standards. The body was a little rusted and apparently it ran on 5 out of 6 cylinders. It was very noisy and could be heard for miles. I was taught to drive by Mr. Bell the super at Cornell Quarters. Since there were so many parking lots nearby, it was not difficult to find an open space to practice driving. I obtained my driving license after one test. I quickly became accustomed to the roads of Ithaca, and I would occasionally drive to New York City and drive in the city and surroundings. One major characteristic of all the cars in Ithaca was their rustiness. Since there was so much salt on the roads, car rusted very quickly. My cousin Ralph who occasionally drove us around that first year had a car with no bottom, that is one could almost pedal with ones feet it was so rusty, in particular on the passenger side.

During the first summer I decided to return to my job at Arbitron. They were delighted to have me back, and again offered me a position when I graduated. How different life would have been if I had accepted the offer. We also spent two weeks in Nantucket, our first vacation in the US. We had a great time on the beach and rented a room in a small B and B. The island was very picturesque, and people very welcoming. I remember that there was a patriotic celebration with a clambake, shrimps, crabs and lobsters. Although we did not keep kashrut the idea of eating these creatures still revolted us and we foolishly did not participate. It took as a few more years until we tried to eat shellfish.

In the second year of my studies I was nominated for the honors society of the Ag school. This was known as Ho-nun-de-kah, an Indian word meaning “Keepers of the Sacred Corn Council Fire”. To join this society one needs to be in the top 20% of students in the Ag school or maintain an A average. I don’t remember our initiation ceremony, there wasn’t any hazing that I remember, and I made quite a few friends in the organization. I think the initiation was a hike in the dark.

Mimi also decided to study. She was interested in mathematics or architecture, but the tuition in this part of Cornell was too great. In order to study she was accepted into the Ag school and majored in biochemistry. This thus was able to take classes in economics and mathematics.

Graduate School decision:

While I was still toying with the idea of going back to Israel and working for the Ministry of Agriculture, a Dr. Bornstein appeared on the horizon. He was visiting the department to deliver a seminar, and we invited him for tea. During conversation he inquired of my plans, and I told him that after the bachelor’s degree, I planned on returning to Israel and applying for my “ old ‘ job. He said “ not a good idea “. He thought that since I was successful with course work, that I should continue studying or the MS or MA in agriculture. This surprised me, since I had never given it a thought, and had no idea how to apply to graduate school. My interest in poultry husbandry had waned, and did not know what I wanted to study. I enrolled in an elementary course in microbiology from Dr. Van Denmark the first summer when I was not working at Arbitron and found it interesting. I

thus realized that there was more to science or agriculture than poultry husbandry, or rearing sheep (still my great love at that time and perhaps still next to viruses).

At the time of the conversation with Dr. Bornstein I attended a class in genetics taught Dr. Everett, a plant geneticist. This was a basic course, mostly Mendelian and population genetics. One day I talked to him after class, and asked for his advice about graduate school. He suggested I write directly to the top individuals in the field of genetics, and gave me a list, among who were Nobel Prize winners as well as future Nobel Laureates. These included Hermann Muller of Indiana University, and Joshua Lederberg of Stanford, as well as professors at Berkeley, Michigan, and the Rockefeller. I sent in my applications to these various laboratories and schools, as well as to Purdue University Poultry Husbandry as a back up. These were the day before the GRE was required, and admission depended on grades and letters of reference. If I remember correctly the application had to be in by December, but the universities only sent out admission letters with offers in Mid-April. Before the time, probably in March, I received a letter from Purdue University offering me a full fellowship in the Department of Poultry Husbandry with a request for an immediate answer. This threw me into a tizzy, since I did not want to say yes, before I had heard from the other schools. I wrote to the other schools, telling them the situation. I got a long letter back from Hermann Muller explaining that I should not give into Purdue's pressure. He could not tell me whether the answer from IU would be positive but that Purdue was behaving in an unethical fashion (I did not know at that time of the rivalry between Purdue and IU). On the basis of this letter I decided to wait, and I must have responded to Purdue somewhat ambiguously. Unfortunately I did not keep the letter not realizing that Herman Muller was a Nobel Laureate with an interesting history.

Sure enough in Mid- April I received an offer both from Indiana and Stanford of a full fellowship (NIH training grant). I may have also received a positive response from Berkeley and Michigan but without support. Mimi and I debated the relative pros and cons of both places, and after having spent two years in " cold" Ithaca we opted for warm Stanford and California. How different my scientific career might have been if I had accepted the Indiana University offer. There I would have been in the lab of Hermann Muller and studied classical drosophila genetics. I have been told that he was rather a difficult person, so I do not know whether I could have stuck it out. Josh Lederberg wrote

that he did not have any room in his laboratory, but that he had passed my file on to a new colleague, Charles Yanofsky, and that I would work in his laboratory. This turned out to be one of the major laboratories in the country deciphering the genetic code. Of course if I had studied at IU I probably would not be in Bloomington today. How ironic! Life is full of such accidental happenings. In fact this sequence of events, the visit by Bornstein, the talk to Everett, and the letter from Herman Muller put me on a distinctly different career path, and changed my life. We gave up the idea of returning to Israel for the time being, and eventually moved to Palo Alto and Stanford, California, which later had an influence on all of Mimi's family. The whole family, including Mimi's Uncles and cousins from New York and family moved to California.

Before this we had to have our European vacation. The idea of a European vacation was one that dates back to the death of my grandmother in Scotland and her leaving me a small inheritance. We had used the money for the trip to the USA. I don't know how we saved enough to make a trip that included Scotland, England, Italy, Holland, and France. In the UK we stayed with my parents in Glasgow, and with my Aunt Betty in London. In other places we stayed in youth hostels or bed and breakfasts, which at that time were considerably cheaper than hotels, and travelled everywhere by rail. We visited the major museums in major cities, attended the wedding of a close friend in England. and met with friends who had been on the kibbutz at the same time, including my old army officer, Zvi and his wife Chava. He was studying Chemistry in London.

The stay in Glasgow was successful, Mimi met my parents and extended family, and I met my young brother Maurice for the first time. He was a kid of about 9 or 10. I could see my childhood and myself in this. My father took him to the same park and same pond that he would take me to, as a child, to sail my little boat and fish for minnows. They still lived in the same house that I had grown up in. The Glasgow accent stumped Mimi, she hardly understood a word, and I think the family had difficulty with her " American" accent. Neither of my two sisters was married and both lived at home.

The visits to Paris, Florence and Rome are mixed up in my memory with subsequent visits. We did not visit Germany, and were very suspicious of Germans. One incident I do remember, we were travelling by train from Amsterdam to Rome, and of course the train had to pass through Germany. We had considerable luggage, and Mimi had placed a

suitcase in the corridor outside our compartment. No conductor seemed to object until we crossed the German border. An official demanded in German that we put the case back into the compartment, although there was hardly any room. Since he addressed us in German, Mimi lost her “cool” and started screaming at him, also in German. Some Dutch students in the compartment succeeded in quieting her down, and took the suitcase into the compartment until we were out of Germany.

On return from Europe we proceeded to Uncle Paul’s house in Connecticut to pick up our clothing and goods as well as our “old” 1953 Buick, and started out trip across this continent in the Fall of 1961.