HERTHA GUTENBERG
(1897-1990)

INTERVIEWED BY
MARY TERRALL

February 6 and 13, 1980

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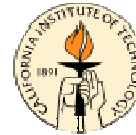

Subject area
Geology, seismology

Abstract
A 1981 interview with Hertha Gutenberg, widow of the seismologist Beno Gutenberg, who directed Caltech's Seismological Laboratory from 1946 to 1957. Both were born in Darmstadt, Germany, and they married there just after World War I. Gutenberg, who received his PhD from Göttingen in 1911, made the first correct determination of the radius of the Earth's core. In 1913 he joined the German University of Strasbourg, then headquarters of the International Seismological Association. He served as a meteorologist in the German Army in World War I, and after the war became a professor at the University of Frankfurt-am-Main. In 1929, he was invited to participate in a conference at Caltech on future directions for the Seismological Laboratory, then under the auspices of the Carnegie Institution of Washington. In 1930, he joined the Caltech faculty and went to work at the Seismo Lab, which, under his eventual directorship, became a leading center for deep Earth and earthquake studies. In 1941, with Charles Richter, he published *Seismicity of the Earth,* whose earthquake patterns were later instrumental in developing the theory of plate tectonics. Gutenberg's scientific honors include election to the National Academy of Sciences, the Bowie Medal of the American Geophysical Union, the Lagrange Prize of the Royal

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Belgian Academy, and the Wiechert Medal of the Deutsche Geophysikalische Gesellschaft.

In this interview, his widow recalls their early years in Darmstadt during the Weimar Republic and their efforts to help friends and his former students to come to the United States during the rise of Nazism. She comments on life at Caltech in the 1930s under Robert A. Millikan and the changes that occurred with the arrival of Lee A. DuBridge as Caltech's president in 1946. She recalls her husband's meteorological work for the U.S. Navy during the Second World War and his visit to Japan just after the war at the navy's behest to investigate possible atomic bomb research there. She recalls the difficulties of adjusting to life in America in the 1930s, her eventual participation in various campus volunteer activities, and her travels with her husband to Turkey and to Israel in the 1950s. The interview concludes with her memories of Mr. and Mrs. Albert Einstein, who became friends of the Gutenbergs during their visits to Caltech in the early 1930s.

Administrative information

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Beno Gutenberg examines a seismograph record at the Caltech Seismology Laboratory, 1956. Photo by *Los Angeles Examiner*. Caltech Archives.

CALIFORNIA INSTITUTE OF TECHNOLOGY

ORAL HISTORY PROJECT

INTERVIEW WITH HERTHA GUTENBERG

BY MARY TERRALL

PASADENA, CALIFORNIA

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Interview with Hertha Gutenberg **by Mary Terrall**
Pasadena, California

Session 1 February 6, 1980
Session 2 February 13, 1980

Begin Tape 1, Side 1

TERRALL: I'd like to start by asking you about your own background—where you were born and raised.

GUTENBERG: In Darmstadt, Germany. We had to go to either the *Volksschule* or to private school. I went to a private school, and then to a lyceum—that goes through two years of college. For the rest of my college years I was going to go to Switzerland, to Geneva, but then the First World War broke out, and my two brothers, who were in my father's business, had to go to war. So my father was left with only two people in the office.

TERRALL: What was your father's business? Was it a factory?

GUTENBERG: Yes, it was machinery for packinghouses. He said, "You have to come into the business and help."

TERRALL: Was the business something that could be used for war supplies?

GUTENBERG: Part of it. But when one of my brothers was in the field, in Flanders, he saw all the waste in the military—all the meat and things like that that they had, while in Germany we were hungry and had nothing. I worked there until the end of the First World War, from morning until night.

TERRALL: What kind of work were you doing?

GUTENBERG: Mostly bookkeeping.

I met my husband [Beno Gutenberg] after the war. When the war broke out, he was in Strasbourg, Alsace-Lorraine. His regiment marched to the French border. And—now I say "fortunately"—he was wounded very soon, in the head; his helmet saved his life. He was in the meteorological field, because he had [studied] meteorology, and Germany was using [poison] gas. He lived for at least two years in a van with all the instruments. They cooked, slept, and did everything there.

TERRALL: Was this near Strasbourg?

GUTENBERG: They were shipped back and forth—from the French side to the Russian side, from the Russian side to the French side. After the war, he came back to Germany. Of course, there was revolution and great turmoil, and the young people got together and discussed how they could rebuild Germany. Beno was very active in this group, and I was, too. One of my brothers was very active and I had come along with him. That's where I met my husband.

TERRALL: Tell me a little bit more about this group—what kinds of things you talked about and how many people were involved.

GUTENBERG: Oh, quite a few, all young people. We talked about how we could get a democratic country. The group didn't really have any name, but they were young. I was just twenty-one or twenty-two; Beno was about twenty-eight.

TERRALL: This was in Darmstadt?

GUTENBERG: Yes. Beno was a very good friend of my brother's. They hadn't known each other before, because when he got out of school in Darmstadt, Beno went to Göttingen and studied there. He got his PhD there [1911]. After that, he was assistant professor at the International Seismological Laboratory in Strasbourg.

He asked my brother, “Has your sister a boyfriend?” My brother said, “No, not a steady one.” I usually went out with my brother. When I think about how young people now are free…. [Laughter] My brother always went with me to the theater, or he picked me up; it’s very, very different from the times we live in now.

Shortly after this, we were engaged. The announcement was made in March, and we were married in August.

TERRALL: This was 1919?

GUTENBERG: It was 1919, yes. My husband had had a brother who was studying chemistry, because their father—my father-in-law—had a soap factory. [The brother] was killed in the war, in 1915, so my husband was left alone. His brother should have taken over the soap factory at that point. And Strasbourg became France, you see, so my husband lost his job. The German Seismological Institute was to be built in Jena. As long as he had to wait—for about two years or so—he worked in the soap factory, but in the meantime he [continued to work] on seismology and wrote several books.

Then the University of Frankfurt called him to come to Frankfurt-am-Main and said that he shouldn’t wait for the [completion of the] institute. So he did.

TERRALL: What happened to the soap factory?

GUTENBERG: I took over.

TERRALL: You stayed in Darmstadt?

GUTENBERG: We both stayed in Darmstadt. It was only a half an hour [to Frankfurt-am-Main] by car—about the same as from here to Los Angeles.

TERRALL: So you stayed there, and he went into Frankfurt, to the university?

GUTENBERG: Yes, and he arranged all his classes so that he didn’t have to go every day.

Meanwhile he worked at night in seismology, on his books.

TERRALL: You didn't see too much of him.

GUTENBERG: He was at home. I worked in the factory from morning until night. In the meantime, we had a second child, a daughter—our son had already been born.

TERRALL: You had your first child when he was working in the factory, before he got the job in Frankfurt?

GUTENBERG: Yes. When Stephanie was born, he was already in Frankfurt.

TERRALL: When you got married, what were your expectations? Everything was pretty uncertain, right, at that time?

GUTENBERG: We had terrible inflation. That was the worst time, worse than the war. The only [good] thing was that people were not killed; that was the main thing. And I should tell you how terrible the hunger was.

TERRALL: Even after the war was over?

GUTENBERG: Yes. But during the war, just for a piece of fish I went very early in the morning to stand in line, because the lines were very long. Then our maid came, because I had to go to the office, and she would stand there. In the morning, we had the money for what was needed that day. The mark was valued according to foreign currencies, and in the afternoon it came out—the mark's value relative to the dollar. So in the evening you could get maybe a loaf of bread, whereas if you could get out in the morning, you could get everything for the day.

TERRALL: How did people go from day to day?

GUTENBERG: Terrible. The teachers were paid every week. We started to barter. You see, soap

was a luxury, and for my boy's first shoes—he was two years old—we bartered with the shoemaker: "If you give me soap, I'll give you a pair of shoes for your boy."

TERRALL: So soap was worth more than money?

GUTENBERG: Yes, it was very hard to get. Of course, there were people who worked in the factory for many, many years; I think they were there when my husband's grandfather had the factory. But you couldn't get fat to make the soap with, so lots of people traded. The butcher traded for something someone else had. In Prussia, it was even worse. Bavaria, where there was lots of agriculture, was much, much better. My father was once in Munich and he brought home some butter. Even a potato was a luxury to the people in Prussia. A friend of mine was in school in Hanover, and I sent her a dish the maid cooked with some potatoes, a piece of butter we had, and a piece of cheese. I sent it to her, and she said, "You don't know what that meant." Two friends of mine were in Heidelberg, at the university. There was a flu epidemic, and one of them died of tuberculosis. The other one was very ill also; they had no assistance. She got through alive, but she could never bear children. She was pregnant twice, but both children were born dead.

TERRALL: And that was from this period of being undernourished?

GUTENBERG: Yes; that was in 1918. When Beno came back from the war, he was shipped from Russia to France and he got the flu, and they put him in this Red Cross train. People were dying around him, and they stopped and took the bodies out. Beno knew he had the flu, and that if he stayed there he would die. So he left the train in Cologne and called his parents and said, "I will take the first train I can get on, and you be at the station in Darmstadt, with a taxi, because I'm sick, but I can't stay here." We always said that that saved him. People forget, you know, and that's good. But talking about it, it all comes back.

TERRALL: When you got married, it wasn't clear where your husband would end up.

GUTENBERG: No, [but] his parents were quite well off, and so were my parents. When we

married, our parents gave us something to start out.

TERRALL: So they hadn't been completely ruined by the war?

GUTENBERG: No, no. In the beginning, what both our parents gave us paid the utilities and paid everything. Later on, this money was nothing anymore, because the inflation got worse and worse; later on, one mark [was worth] about five cents.

So he worked in the factory, and very shortly after that, Frankfurt University called him.

TERRALL: Had he applied for that job, or did they just know of him?

GUTENBERG: They knew of him, from his previous work in seismology. And so he did that and I ran the factory.

TERRALL: How did you like the work?

GUTENBERG: I had to do it. But one thing in Germany was different from here. You could always have—not during the war, but after the war—you could have help. So I had a maid and one for the children, a nursemaid. We were spoiled in that respect, when I see how the young mothers in America work. And then when he was in Frankfurt, a [professor] retired in Berlin. And another in Freiburg—which is a technical school, like Caltech—and they would have liked to have had him. And then came the invitation to America.

TERRALL: Before we get that far, I want to ask you, during this time of terrible inflation, were there still people who could afford to go to the university?

GUTENBERG: Oh, yes. I don't know about scholarships and funds for students. But, yes, they could.

TERRALL: So it was pretty much business as usual in the university?

GUTENBERG: Yes, yes, that it was.

TERRALL: Did he like his work there?

GUTENBERG: Yes. Near Frankfurt were some mountains, and there was a meteorological observatory. And Beno put a seismological lab in, too. His summer vacation he spent up in the mountains. It wasn't as high as Palomar or Mount Wilson, but he spent his days there. He was always working. The thing was, we could never have, or very rarely, a vacation together, because by that time our boy was in school—he was six years old—and the school and the universities never had the same vacation schedule. Only Christmas and Easter; the long summer vacations were not together. So he usually spent it up in the mountains and did some work there. I was busy with the children, and I went up when I could in the summer.

TERRALL: Did you stay at working in the factory throughout the period he was working in Frankfurt?

GUTENBERG: Yes. We sold the plant before we came to America, and I worked there until that time.

TERRALL: His father had died by then?

GUTENBERG: Yes, his father died and we moved into the house—a house near the factory, with a little garden. My mother-in-law lived downstairs, and we had the upstairs flat. But it was even hard to get into your own house. You see, you couldn't just throw people out; you had to give them another place to live.

TERRALL: There were other people living there?

GUTENBERG: Yes, before us. It was a teacher and his family, and we found something for them. It seemed that it was necessary. First of all, my mother-in-law was alone, with a maid and a house and a garden, and I was going to the office, so I could come for lunch over to the house.

So that worked out all right.

TERRALL: During this period, the late twenties, were things getting worse and worse as far as inflation went?

GUTENBERG: When the mark was stabilized, things seemed to get better. Then came the Reichsmark. With the other mark, if you had a hundred marks, then later you would have maybe ten pfennigs. If you had much in your savings account, several thousand marks, when all was over there was maybe a hundred marks there. Of course, many people, rich people, were very poor. I knew somebody who was a society lady; she gave bridge lessons. And others, who really were not prepared for this—they suffered awfully. But for people who were in business, things got straightened out. You see, it all was stabilized on the dollar. A dollar was worth four marks and twenty-five cents before the war. That was when a lot of Americans came to Germany and bought houses for a few hundred dollars. They could buy a business for a very small amount of money. That was for a short time, around 1930.

TERRALL: There were Americans coming and investing in Germany?

GUTENBERG: Yes, with dollars. You see, the dollar was worth so much, and our mark was nothing. For about $500 or $600 you could buy an office building worth two hundred thousand marks.

TERRALL: So in 1929, your husband was invited to Pasadena.

GUTENBERG: Yes, by the Carnegie Institution. He was in Frankfurt when the invitation came to go to America, to a meeting in Pasadena, and give a lecture. It was in the old Maryland Hotel, in downtown Pasadena—where the Broadway is now. That was the downtown hotel, a very nice one. Beno was also invited to Washington to give some lectures at the Carnegie Institution there and at another geophysical institute, and he said, “I can’t leave you for six weeks, alone with the business and the children and Mother.”

Now, two of my father’s brothers had gone to America. The sister of my grandfather

went. She had been a teacher in Germany. She had the Prussian type of education—very strict and military. She said, "I'm going to America; the land is free, and the people are, too," and she went to Chicago. She had no relatives there or anything. She was in her early twenties, and she became a teacher in Chicago, and she wrote my grandfather, her brother: "Your boys have to come out to America; there is a future here, and they must not stay in Germany." So my two uncles went, but my father stayed in Germany, because at that time my grandmother was very weak and my grandfather was old, and my father said, "I won't leave you alone." And one uncle, who was then living in Chicago, [visited] Germany at the time the Carnegie Institution asked Beno to come to America, and he said, "If you don't take this opportunity to go to America…." They paid everything, you know. Beno didn't stay in a first-class hotel, though he could have; he always was thinking about the budget. Anyway, my uncle said, "Hertha doesn't mind; she can take care of the factory and the children and everything." And I said, "Go!" So he accepted.

TERRALL: You encouraged him.

GUTENBERG: Yes. But I didn't encourage him to *move* here. In 1929, our son was just a baby. Harvard had already asked him to come for two years, and he had said, "No." He couldn't leave me and the baby, so he didn't accept it.

TERRALL: That was before the Carnegie invitation?

GUTENBERG: Yes, that was in '27. So [in 1929] my husband went to California, and it was very hard to get transportation. I think the meeting was in September, and all the [American] tourists were going back home from Europe, so he had to go via Canada. Ottawa has a good seismological station, so he wrote the director and asked if he could stop there. The director said he would be delighted and invited Beno to his house, so he stayed there. And from Ottawa he came to Pasadena.

TERRALL: Did he know English?

GUTENBERG: Yes, some school English. He wrote the speeches and lectures down, and one of

my uncles in Chicago was very good in English—he wrote himself, and he corrected Beno's lectures.

And, really, he had no idea that [Caltech was] looking for someone for the Seismo Lab [Seismological Laboratory]. They had invited all these people—Sir Harold Jeffreys from Cambridge was here, and Father [James B.] Macelwane from St. Louis. The top geophysicists in the U.S.A. After the meeting, Beno went back to Washington and to New York.

TERRALL: What was his reaction to Pasadena?

GUTENBERG: He liked America very much, he said—especially Pasadena and Washington, D. C. I had no idea. Pasadena I knew was in California. I said, "Why did you like Pasadena?" He said, "They have a wonderful seismological laboratory, and they could do more. They talked about it at the meeting." Then he had hardly gotten home when a telegram from Dr. [Robert A.] Millikan came: "Would you accept a full professorship at the California Institute?" Because the Seismo Lab—I'm sure you know all this from Dr. [Charles] Richter—belonged to the Carnegie but it was run by Carnegie and Caltech; Dr. [John P.] Buwalda was on this committee; Harry O. Wood [director of the Caltech Seismological Laboratory 1921-1946] was from Carnegie; [John A.] Anderson was from Carnegie also.

TERRALL: Did Hugo Benioff come later?

GUTENBERG: Benioff was there, but he was an assistant at that time. He got his PhD when we were here, under my husband and Dr. [Richard Chace] Tolman in physics. That was quite a few years later, because Beno encouraged him to get his PhD.

This telegram came from Millikan; Beno was in Frankfurt at the University. So I called him up and said—there was a paid answer—so I said, "Should I telegraph back, 'Thank you very much, but no'?" [Laughter] And he told the director of the institute [Institute of Meteorology and Geophysics of the University of Frankfurt] about it, Professor [Franz] Linke. And Professor Linke said, "Better go home before Hertha does something foolish."

TERRALL: You didn't want to leave Germany.

GUTENBERG: No, because my parents were there. And going so far! When we were on the boat, a lady asked me, “Where are you going?” and I said, “Pasadena.” “Ah, it’s a beautiful city, but it’s as far from New York to Germany as it is from New York to Pasadena.”

TERRALL: What was your husband’s response to the telegram? Did he have mixed feelings about it?

GUTENBERG: My husband was very much afraid that we would have a second World War. He said, “Germany will not rest until it gets its honor back. They said the socialists stabbed [Germany] in the back, but that wasn’t true; it was a defeat because they went too fast, to Flanders and the river Marne. And I don’t want to bring my children up here, because then they will be in the next war.” But my son *was* in the next war—on the American side. Fortunately, he spoke very good German; he picked up the German at home.

There are very funny stories about that. Once, I took the children to the fire station and the City Hall of Pasadena; the children went to the San Rafael [public] school. At that time we lived on Annandale Road, because it was close to the old Seismo Lab [220 North San Rafael Ave.] and my husband could walk up there. Of course, we had no car. I didn’t drive, and he didn’t drive; my father had had a chauffeur and so had his. So Beno asked, when the children came home for lunch, “How was the city fire station and City Hall.” My daughter said, “Terrible.” He said, “What was the matter?” “I told mother not to talk German to me and then she talked English, and that was even worse.” [Laughter]

TERRALL: Well, let me go back to your decision to come here. He basically was foreseeing trouble in Germany.

GUTENBERG: Yes. Not the Nazis—it was too early for that, you see.

TERRALL: It’s just that he suspected that there would be another world war.

GUTENBERG: And he didn’t want the children to grow up there and go to another world war.

TERRALL: What was your response to that?

GUTENBERG: I understood, but it took a long time. And it was a hard decision. Today, everything is so much smaller; you hop into the airplane. You see, we went by train and ship, and we took my mother-in-law, because she was alone. She didn't sell her house, because she wanted to go back. Then she went back home through the Panama Canal, on a German boat. After she got home to Germany, she said, "I don't like it here anymore. I love California, and I would like to come back." She was seventy at that time. So we went back there, in June or July of 1932, and brought her back again. She came as an immigrant.

We were not immigrants. You see, as a teacher, being invited, we were not included in the quota of immigrants—we didn't have to wait. A friend of ours, an American, vouched for my mother-in-law. When we brought her [in 1930], as a visitor, we had to put $500 down [as a guarantee] that she would come back [to Germany].

TERRALL: This was in Germany?

GUTENBERG: In Germany—we had to apply for our visas in Germany. They wouldn't believe us. My husband very, very rarely lost his head, but he said, "You don't believe me?" The man in the consulate didn't know that a German professor could get so angry. My husband said, "I don't remember that a German professor was not trusted when he said 'It is so!'"

She could come here, I think, for three months, but it could be extended. And then she got on the quota so fast because she was alone. And my father's cousin was at that time the governor of Illinois—he was the grandson of the girl who went there as a teacher. When we came here first, he was a superior court judge.

Begin Tape 1, Side 2

GUTENBERG: My grandfather's sister who came here as a teacher got married in America. She had I don't know how many sons and one daughter, and it was the daughter's son who was the governor of Illinois. He was a great friend of Frances Perkins, the secretary of labor in the Roosevelt administration, and she helped get my mother-in-law on the list of immigrants when

she wanted to come back. And we went back to Germany in 1932 and picked her up. We went back for her seventieth birthday and stayed with my parents; then we brought her back.

TERRALL: At that time, in ’32, the Nazis would have been more obvious.

GUTENBERG: Very. My husband and I went to Vienna. First we went up to [the University of] Leipzig and visited Saxonia. And we went to Dresden. My husband was then more in meteorology than seismology. We went to several of the universities on the same trip. And we went to Innsbruck, where there was a German science institute—physics and seismology, and other fields—and Beno gave a lecture there. Then we went to Darmstadt, stopping off in Salzburg for the Mozart festival. That was where Hitler started, later on. It was all full of Nazis. We felt very bad about that. My husband said, “You see now.” And in Darmstadt we saw—which disturbed me so much—schoolchildren eight or nine years old, digging for cover where they went underground, in the middle of the city. They were prepared; everything was blacked out every night.

TERRALL: They were preparing for war?

GUTENBERG: They were preparing for war.

My parents’ house was across the street from a beautiful park that belonged to the Grand Duke of Hessia. There was an opera house. Darmstadt was a very, very artistic city—concerts and theatre and opera. And coming to Pasadena, seeing Colorado Street; that was the highlight in Pasadena, you know. [Laughter]

As I said, across from my parents’ house was a park. There was a fight [there] between the Hitler Youth and the Communists. They beat each other up, and they ran to our house to get some water and so on. These youth groups had said to us, “You can tell the court how they beat us up,” and my husband said, “I’m sorry. We’re Americans, and we are leaving tomorrow. I don’t want to be involved.” But they came to our house to wash up, and the police came and settled it.

So there were already signs. This blackout and everything, and the eight- and nine-year-old boys and girls digging in the streets. We were glad to come back here. I was glad to come

back. And when we went to the boat—it was the *Europa*—my brother called me to tell me he was staying in Bremen, and he said, “Hertha, we are so glad that you are out of the country. It gets worse and worse. We are so glad that you are out.” Hitler moved in with a hundred seats in the Reichstag, and later on they burned it. The funny thing is, my parents visited me in ’35 and my mother said, “Oh, what the Communists did! They burned the Reichstag!” But we knew what they didn’t know, and I told her it was not the Communists who burned the Reichstag but the Nazis. She said, “I couldn’t sleep all night because of what you told me—that the Nazis set the Reichstag on fire and did this and that.” They could only read the papers and they believed what was in the papers. My parents were very democratic people; Mother couldn’t believe that they were lied to.

We came back [to Pasadena] by train, and when we got to San Bernardino my children [shouted], “Here is California!” They didn’t like Germany anymore. And I thought, “That’s it!” They were so happy to come back here. They counted the palm trees. They got up early in the morning to see California from the train.

TERRALL: So all of you had gone back to Germany in 1932?

GUTENBERG: We all went back, and the children were left with my parents. I had advertised for a nursemaid. They were talking about the Nazis at that time, and we got a stack of letters so high from people who wanted a job—just for the few months we would be in Germany. We had one girl who had been with us a very long time, and she wanted to come back with us. She had been there from the time my daughter was born until we left the country—four or five years. She had applied for a visa, but her number was so far down that she had given up.

We gave affidavits for thirty-two people who came out. We took three young girls in—not all at the same time. One lived with us for several years. She married a Caltech boy who got his PhD in geophysics and electrical engineering. Then there was another one, whose boyfriend was in San Francisco. They couldn’t marry in Germany, so she stayed with us for a year at least.

These young groups didn’t speak out. Buchenwald and Dachau, that all came later, but they put people in jail. You couldn’t even speak up, or the next day you were sent to jail. One girl we took into our house belonged to one of these groups; most of her friends were sent to jail, and she said, “Next time I will be in there, too.” So she wrote to us, and it took quite some time

to get her over here. My husband had to go to Mr. [Edward C. (Ned)] Barrett [Caltech comptroller 1934-1952] to get him to say how much money we made. William Wilson [Pasadena real estate agent] said that we had bought the house and paid cash for it. Then she could get her visa, but she wouldn't get it until they were sure that America wouldn't have to pay for her. Not like it is now—people come in, they go on welfare. She could never have gotten in unless we had vouched for her.

One former student who came here, Dr. [Helmut] Landsberg, didn't know that his grandfather was a Jew. He was the last PhD my husband had in Frankfurt. He became a professor at [the University of] Maryland, and during the war he was a major in the air force, to help forecasting the weather.

And my brother who told me "I'm glad you're out" was in the concentration camp at Buchenwald, one of the worst. We didn't get visas for our own family, because we wanted to help people who had nobody to turn to—friends and former students. Then my brother came out, with his wife and three children. Both of my brothers. My oldest brother came first, and he established, starting from nothing, the same business he had had in Germany. Now he's dead, and his son has it. He graduated from UCLA and then went into his father's business and is doing very well. He has a manufacturing plant in El Monte, and another in Los Angeles.

My younger brother had three children. At first they could go to school in Germany, but they had to sit separately from the Christian children, and finally they couldn't go to school at all. They never forgot that, and when they came here to Pasadena they went to school and did fine. One graduated from NYU, one from [the University of California at] Santa Barbara, and the third from UCLA. And they had good jobs offered to them. And do you know what they did? They said, "We went through Germany and the Nazis; we'll go to Israel." They all three went. So my brother went every year to see the children in Israel, and my sister-in-law said, "How long can we go on these trips forward and back? We have to make up our minds if we stay here or go"—because my brother is eighty-five. At that time, he was eighty and my sister-in-law was in her seventies, and it's a long, long trip, with the nine hours' difference. So they rented an apartment for a year and they decided to stay there, in Jerusalem. They live there and are very happy there. My sister-in-law says, "At least we are not alone."

I have been there. I had once been there with Beno, but he didn't see much; he worked for three days and three nights. Since my brother moved there, I have been there three times.

TERRALL: Well, to go back to the old days—you mentioned that the young people right after World War I were involved in political activism. What happened to that? As you got settled into your family life, did you just stop doing that?

GUTENBERG: No, no. Beno was active. He went to—I think it was called the Young Democrats or something—for a few years. We helped wherever we could. And it was quite some time until everything was settled. It was really not a very bloody revolution. [Friedrich] Ebert, who was a socialist [a member of the Social Democratic Party], became president of the [Weimar] government. It was stabilizing all over by then.

TERRALL: Was he the person you supported?

GUTENBERG: Yes. He had the support of labor and democratic people. I don't know if we voted for him, I don't remember. But then it swung from the liberal side to the right and [Paul] von Hindenburg came in. He was old, and they said he put everything in his pocket. They said he even wrote on his handkerchief—he was quite senile. It was very easy for Hitler to get in.

My father and mother came in 1935 to visit us, and I went to New York to pick them up from the boat. And all of a sudden I hear, "Mrs. Gutenberg, will you come up?" On the boat, there was a deck officer, and he said, "Your father's and mother's visa is only good for so long." And he was very nice. "You have to go to the German consulate"—which was near the Statue of Liberty—"to get it extended. You can have it for another six months."

When they finally came for good—that was in '38—they were allowed five marks each, one silver spoon, one silver fork, and one silver knife. When they packed, they had to pay the Nazi government for their own furniture, which they took along. By that time Hitler was in and my father said, "We come penniless." My children said, "Oh, grandmama, why don't you stay here?" And my mother said to my children, "Now, I don't want to be a burden to your parents."

TERRALL: So they were still letting people leave in '38?

GUTENBERG: Yes, but you couldn't take anything with you. My mother had to give up all her

silver, all her jewelry, and things like that. And when they packed, there were two men from the government watching them, [to see] that they didn't take any silver.

TERRALL: Did they come to Pasadena?

GUTENBERG: They came to Pasadena. My brother had rented a house on Annandale Road, so they stayed there until he bought a small house in Beverly Hills. And my other brother lived also here in Pasadena, and then he bought a house in Los Angeles. Some people who went out of Germany and lost everything are now paid by Germany; they get a monthly rent now. One of my brothers got something—what he had paid into his social security in Germany. The other one, when he applied, he already paid taxes in America, because his business went well. So they checked that and said, "You make so much money and pay so much in taxes, you cannot get anything from Germany." But that's how many people get by, these refugees.

TERRALL: That was much later, though?

GUTENBERG: Oh, that's now—at that time, they all worked. A friend of mine—his wife was a relative of my husband—was very, very wealthy, a construction engineer, and he started here as a Fuller Brush man. He worked for many, many years as a Fuller Brush man, and in Germany he had had this big company, a ranch and horses and everything.

TERRALL: When you moved here, how did your husband like his job at Caltech?

GUTENBERG: Very well. Caltech was everything. We always said that his first love was Caltech and the Seismo Lab. After that, I come, and the children. That was a standard joke in our family. You know, when he left after the meeting in 1929, Millikan was at the train station saying goodbye to him and said, "I'll see you soon again." And Beno said, "Oh, are you coming to Germany?" And Millikan didn't say anything. So they had already decided, but we didn't know.

I read what Dr. [Judith R.] Goodstein [Caltech Archivist] said in her lecture, about Millikan looking for money and building up funds. Everything was very tight, and Barrett was

even worse—he was at that time comptroller. They always said he would divide a penny in two, each gets a half. But my husband liked Millikan very much. He knew what Beno was doing, and he was interested in it. And then Allan C. Balch, who gave the Athenaeum, was very interested in my husband's work—and also geology. He had the geology professors every year for dinner, and the men talked about their work. We all looked forward to it; we never had it so good. They were very, very kind. They gave up their house and lived at the Biltmore Hotel in Los Angeles. They had two stories—and you should have seen Mrs. Balch's clothes, her hats, and her shoes.

We saw her—he was no longer living—about a week before she died. Dr. Buwalda was visiting her, and he said, "Beno, you and Hertha should see Mrs. Balch. She asked for you." So we went over. Yes, I grew to love Caltech. Of course, things changed very much when Dr. [Lee A.] DuBridge [Caltech president 1946-1968] came.

TERRALL: In what way?

GUTENBERG: Many ways. Mrs. Millikan looked after the Trustees and the Associates. That was her work; the students had not so much contact with her. I'm sure you've heard about her teas—your name begins with A through D, you come next Sunday—that was how she did it.

When Dr. DuBridge came, we had no health insurance, really, and he said, "Everybody must have health insurance." It was the first thing he did. Of course, they [the DuBridges] were very much interested in the students. The students came home from the war, and I don't know if you know anything about the barracks in the cornfield near Arcadia. That was where the married students lived. The students came back here on the GI Bill, you see, and that was different. They put old military barracks up. The Biology [Division] had a place in Arcadia where they had raised different [varieties of] corn, and there the barracks were put up.

TERRALL: That's where the students lived?

GUTENBERG: Married students, and they had children, a lot of them. When the DuBridges came, I was president of the faculty wives. And the Caltech Service League—I was twenty years their treasurer. So Doris [DuBridge] and I became really good friends, and she went and visited these

students and their children, and some of the wives got together and had Doris and me to lunch there. It was a whole different atmosphere.

TERRALL: Socially, it was more relaxed?

GUTENBERG: Much more relaxed. Mrs. Millikan was very formal. When she called on us, she left calling cards and wore white gloves. Thank goodness, those times are over! My mother-in-law at that time lived with us and the children. I had learned to drive and learned the language and so forth. We were very lucky—we had a colored woman. She was glad to have the job; she came every day for four or five hours. First she got $10, and when we were cut in ’32 and things got worse, she said, “Mrs. Gutenberg, if you keep me, I’ll work for $8.” Because she had children and. her husband wasn’t a good provider. She was with us for sixteen years. I remember coming home once and I had to ask her, “What are all these cards?” Mrs. Millikan had been there. I wasn’t at home, but Mother Gutenberg and the children were. Mrs. Millikan visited with her and left a card for me, a card for Mrs. Gutenberg, and a card. from Dr. Millikan for my husband and another for me—so there were four or five cards.

TERRALL: They were just calling cards?

GUTENBERG: Just calling cards, nothing on them; she left them in the hall when she came. And. that was not Lee’s or Doris’s style.

I was, as I said, president of the Caltech Women’s Club. They had the newcomers at the beginning of the year, and they [the Dubridges] said, “Hertha, will you introduce these people when they come into the hall and bring them to us.” It wasn’t formal, and I think that was very, very nice. They were both very much loved. Doris and I became really good friends. They had a house at the beach, and quite often when Lee was in Washington, she and I went down there. We had wonderful times together. Just about two weeks before Doris died [November 1973], Mrs. [William H.] Pickering called me up and said, “Hertha, I talked to Lee and I can come out this afternoon, but Doris said I should bring you along.” So we went to see her, and that was the last time I saw her.

He did so many good things. First of all, as I told you, there was the health insurance.

He demanded, when he was asked to come here, that Caltech have an insurance program.

TERRALL: He also pushed for salary raises, didn't he?

GUTENBERG: Oh, yes, very much. But Dr. Millikan was very much respected. Mrs. Millikan was liked—she was a president's wife.

TERRALL: She wasn't approachable.

GUTENBERG: No. With some people, yes, maybe. If she felt sorry for them or something—if something happened, she stuck by the woman. And he also had his favorite boys. But it was easier under DuBridge than before; you had more contact; it felt more like a family. I know when Linda and Barclay Kamb called and said, "We want you to come to dinner," I said, "Why do you bother about an old woman?" "You belong to the Caltech family." And it is a special place to be.

HERTHA GUTENBERG

SESSION 2

February 13, 1980

Begin Tape 2, Side 1

TERRALL: Last time you talked about getting people out of Germany in the thirties. I wanted to ask you a little more about that. You said that you had sponsored quite a number of people.

GUTENBERG: Over thirty.

TERRALL: Over thirty. Did they just let you go on doing that indefinitely?

GUTENBERG: No. Finally, the consul who gave the visas asked, "How many people can a professor support?" Not that they all lived with us; some lived with us, and we paid for their education and things like that, but they were never on welfare, or even student loans or anything. One of the girls who stayed with us teaches mathematics and German at a Quaker school near Washington, D. C. One, as I told you, married a Caltech boy who got his PhD and is a geophysicist in the oil industry. The third one was engaged in Germany, and she and her fiancé went to San Francisco, where his brother lived who was a doctor. So she stayed with us a year until he was settled; then they got married.

TERRALL: These were people you had known in Germany?

GUTENBERG: Yes. But we also had some of my husband's students: Professor Landsberg, who was during the war a major in meteorology, and Professor [Victor] Conrad, who was a very prominent man at the University of Vienna. Not only Jews, the Catholics were also persecuted by Hitler. Professor Conrad came here, we gave him the affidavit, and the Catholic organization helped. He went to the Meteorological Observatory at Harvard. And my husband helped some other people.

TERRALL: People who had been his students in Frankfurt, is that right?

GUTENBERG: Professor Landsberg was his last PhD student. Some that we sponsored never came to Pasadena. Landsberg became a professor of geophysics [first] at Pennsylvania [State University].

TERRALL: Did you find jobs for these people?

GUTENBERG: No, they found themselves jobs, but my husband recommended them, or they were helped by other people. Like Professor Conrad, who made quite a name for himself; Harvard took him in. Of course these people were very happy to have a job, even with little money. Landsberg became quite active during the war. He was a major in the service, and after the war he was professor at the University of Maryland. I still hear at Christmastime from him.

TERRALL: There were informal organizations, weren't there, that tried to find out where people could be placed and so on?

GUTENBERG: Yes. Conrad got this through the Catholic organization, which was big in New York. They helped him. He even taught meteorology at Caltech one semester. You see, there was a department of geophysics, and meteorology was a part of it. He stayed at the Athenaeum and taught meteorology, because during the war there were a lot of meteorologists, mostly officers, who were taught here. My husband taught upper atmosphere. [Theodore] Von Kármán taught the same group, and Paul Epstein in physics. And then later on, I think, Tolman said, "We don't need that. UCLA has a big department in meteorology." So the department was closed. [Irving] Krick was more or less in business for himself, with long-range weather forecasts. He got contracts with the movie industry to tell them how the weather would be when they filmed in a certain place.

TERRALL: I didn't know that. So he was a consultant?

GUTENBERG: Yes, I think he did more consulting than teaching. It's a big firm; they are in

Denver. Then he had the clothes industry—if there are going to be cold winters or warm winters, these people would know what to buy. He was, in this respect, very far ahead; of course, he wasn't always correct, like many weather forecasts.

TERRALL: That's the question. Was he successful?

GUTENBERG: Very. He became a millionaire and lives in Palms Springs.

TERRALL: I knew that they had done away with meteorology at Caltech, but I didn't know what had happened to Krick. He went into business.

GUTENBERG: Yes, and a big business.

TERRALL: Your husband was involved in meteorology during the Second World War as well as teaching, is that right?

GUTENBERG: Yes, in the navy's V-l2 program.

TERRALL: Was he also working directly for the services in some capacity?

GUTENBERG: For the navy, on hurricanes. He was stationed in Miami, more or less. There are something like seismographs, instruments for hurricanes….

TERRALL: So you can predict—

GUTENBERG: How they go, where they go, where they will strike. Yes, he was involved with that for quite some time.

TERRALL: He was going back and forth to Miami?

GUTENBERG: Yes. I didn't go with him. He stayed at the officers' club there. Also for the navy

he went to Japan. He was really the first scientist after the peace who went into Japan. It was to see if they had done research at that time for atomic bombs.

TERRALL: There was a group of people that were sent over?

GUTENBERG: No, he alone. He was in Tokyo. He went first to different islands, through the Philippines, and then later on to Tokyo. There was there a man who was here for a year, Dr. [Chuji] Tsuboi, who was very prominent in seismology—maybe you have heard of him. My husband always had a captain and a sergeant with him, because it was right after the war. They didn't let him out of their sight, on account of snipers or something—I don't know how these people work. And Tsuboi and he could never talk; they wanted to talk seismology, you see. [Laughter]

Then he came back. He found out [that the Japanese] hadn't done anything very important in atomic science.

TERRALL: He traveled around to where their laboratories had been?

GUTENBERG: Yes, in Tokyo—I don't know where. My husband, when it came to military secrets, wouldn't even tell me anything. I know he was in Tokyo for a few weeks.

TERRALL: And you know that he concluded that there wasn't too much going on.

GUTENBERG: No, no there wasn't. Here, many people thought that if we bombed certain places, we could start an earthquake there—that was the theory of many civilians, and maybe military people. But my husband was against that; it would be too uncertain.

TERRALL: Why was he selected to go over there?

GUTENBERG: I really don't know—it was by the navy. Going to Miami, and going [to Japan], he had mostly military planes. He flew from here—I remember, I brought him to the airport. He went then to Moffett Field, near San Francisco, and from there he flew to the Philippines and

on. I told the navy captain in charge of the project that I never knew when he was coming home, and I told him I wouldn't let Beno go anymore, because it was terrible for me, not knowing where he was. The captain told me he would take care of it the next time, so Beno had better travel and he knew when he was coming home.

Once, I went from one airport to another. When I came down to San Pedro, they said, "Oh, that navy plane—it was so windy it flew to Long Beach." So I drove to Long Beach, and from Long Beach I think I went to four or five different airports. And when Beno landed at San Pedro the man there said, "Oh, I sent your wife to so and so." So he took a taxi, and from one o'clock until five o'clock I didn't know anything, so I thought I'd better drive home. And I came home, and sure enough, the telephone rang. Beno said, "Don't tell me, I know. I tracked you all the way. I was about a half an hour later than you were." And I drove then to Long Beach and he waited for me there.

TERRALL: That was when he was coming back from Tokyo?

GUTENBERG: No, I think from Cuba. So I said to this captain, "I don't let him go anymore." The next time when he flew—I think then it was to Japan—his name was called first to board the airplane, and then the general and major—my husband was so embarrassed. And I told Captain Orville that he had really kept his promise. That was my war experience.

TERRALL: I was wondering if, when Dr. Gutenberg first came and the Seismo Lab was not on campus, did that cause any problems, administrative or otherwise?

GUTENBERG: No. The old address was 220 North San Rafael—there are still some instruments there. Then they sold that and [in 1974] they moved over here [Seeley G. Mudd Building of Geophysics and Planetary Science]. My husband would come home and pick up the mail that came to Caltech and have lunch, and then he would take the mail up to the Seismo Lab. Or sometimes he had his classes and didn't go back to the lab. Harry O. Wood did that, always, before my husband came. He lived somewhere in a room on Los Robles. Also, he worked at night. He didn't come to his office until about noon. Maybe you have heard that from [Charles] Richter or someone.

They all loved the old lab. I know people who were there for a long time, and when they all came together they would say, “It’s not the old Seismo Lab anymore.” They really were a close group.

TERRALL: But since his appointment was on campus, he had an office on campus and an office at the lab, is that right?

GUTENBERG: Correct. And then when he retired as director [1957], he gave up the one office. At that time, sixty-eight was the age of retirement from administrative jobs; now it’s sixty-five, I think, and then you go on half-time. My husband was on half-time for two years, and he taught until the semester came to an end in June. Bob [Robert P.] Sharp [chairman, Geology Division, 1952-1968] asked him, “Beno, do you mind teaching this and that this semester?” And Beno said, “I get paid for it half-time, why not?”

TERRALL: By that time the Seismo Lab was run by Caltech and not by Carnegie.

GUTENBERG: Oh, that had happened a long time ago, well before Dr. DuBridge came. There was Dr. Anderson, Harry O. Wood, Dr. Buwalda, and my husband. They were the four men who were the administrative people for the Seismo Lab. Harry O. Wood was very, very ill for a long, long time. He lived at the Athenaeum for a year, and then he had to move out. He lived even longer, and he was at the Las Encinas sanatorium. I really don’t know what it was. He could hardly talk anymore. He was ill for a long time, but he had a lot of money, even living at Las Encinas, which cost at that time already nearly $100 a day.

TERRALL: He had family money?

GUTENBERG: No, but he had never married. He lived in a room near Los Robles or something. He ate someplace. I’m sure he never ate breakfast; he had one big meal a day.

TERRALL: He never spent any money?

GUTENBERG: No. And the money all went back to Harvard, where he came from; he didn't leave anything to Caltech.

TERRALL: So he had been ill, actually, long before he retired?

GUTENBERG: Yes.

TERRALL: He was working part-time, or something like that?

GUTENBERG: He was still coming in, but I don't think he published very much. But he came every afternoon to the Seismo Lab. It was very funny; we always, when we had people from the Carnegie Institution or from the geophysical lab for dinner, we always invited him. And he'd say he didn't know if he could come. At that time, I had a woman working for me. I said, "I don't know, should I set the table for ten or eleven? Mr. Wood wasn't sure and he hasn't told my husband." She'd always say, "You can be sure he'll be the first one here." And sure enough, he'd walk from the Athenaeum to our house.

TERRALL: So you were pretty friendly with him, then?

GUTENBERG: Oh, yes, we were. My husband was. I didn't see him so much. But when we had a party, we always invited him. He was very peculiar, you know—an old bachelor.

TERRALL: He was quite an old man then at that time?

GUTENBERG: Yes, he must have seen seventy or so. But he was a long time here.

TERRALL: Richter also collaborated with your husband, didn't he?

GUTENBERG: Very much. They wrote books together; and lots of things were published with my husband, because he collaborated with him. Afterwards, after my husband died, Richter published one book, a textbook on seismology, but I don't think he did very much research.

They wrote *Seismicity of the Earth* [Geological Society of America, 1941]. The Princeton University Press brought it out [second edition, 1954]. They wrote my husband that it was all sold out and a new edition should come out. My husband said he would bring it up to date for a new edition. Richter was at that time in Japan, and he wasn't interested. So [Frank] Press [Seismo Lab director 1957-1965] said, "Beno, go ahead." And he had it in his bed, working on it, bringing it up to date, when he died [January 1960]. They wrote to me last year—or is it two years ago—that I had to give my consent for another edition, and of course I did.

TERRALL: So that was completed, then, that revision?

GUTENBERG: The revision? No. They brought it out more or less as it had been. But my husband had all these new data; he talked to Press about it, who was the director at that time and he said, "Beno, go ahead. You did most of the work anyhow, on this book." Sunday, the doctor came and said, "You shouldn't work." And then Monday night he died. One of the articles about my husband said that there wasn't much to add, that all those things were up to date.

TERRALL: Oh, yes, Richter said that.

GUTENBERG: I know someone did.

TERRALL: To go back to when you first came here, I know you were reluctant to come and worried about it. I was wondering whether you could recall what it was like and what adjustment problems you had.

GUTENBERG: There were a lot of adjustment problems. First, as I said, I had to learn how to drive. My husband took me to the Rose Bowl parking lot to learn how to drive. [Laughter] That was fifty years ago. And, the children—my son was quite unhappy.

TERRALL: How old was he then, about eight?

GUTENBERG: Nine; he became nine that year. We sent him to Berlitz school in Germany before

we came here. Someone said—I think I talked to the teacher—that he should start here in the first grade and come up to the grade where he should belong. He never talked about it, but he cried very often when he came home from school.

TERRALL: Because he was older than the other kids?

GUTENBERG: They were five- and six-year-olds, and his sister went to kindergarten. I didn't know why; he never said. But after, I think, two months, he was in the grade he should have been in.

TERRALL: So he learned English very fast?

GUTENBERG: Very fast. My daughter never opened her mouth for six weeks. She had some friends here on Annandale Road. There were lots of kids in the street. And she mixed some German words with English words, and she was, I'm sure, embarrassed. You know, at that time, we didn't think so much about child psychology. I wish I had known at that time what I know now. She never spoke for six weeks, in English. We were trying to speak English at home. My daughter never said anything in English, and then all of a sudden she spoke English. She wanted to be sure. And we were very much surprised. We had brought our old radio from Germany, with batteries, and my husband installed it, and she came into the room once when we had the radio on and said, "Isn't that wonderful, how quickly this radio learned English." [Laughter] Albert Einstein used it very often in his speech; he told the joke, you see. [Laughter] But then she adjusted very well.

TERRALL: Did you know English before you came?

GUTENBERG: Some, school English. French, yes. But I've forgotten my French now. And even when I worked at my father's office, I had private French lessons. My mother didn't speak English, but she knew French and Latin. I think in Europe you have to know more than one language. Then we went back to Germany after a year and a half and got my mother-in-law, and then of course our house was too small, and we bought the house on Ninita Parkway and built a

room on for my mother-in-law so she had her privacy.

It was harder for me than for my husband, because he had his work. As I said before, when we came back in 1932, the children—

TERRALL: Were glad to get back. So they really adjusted very quickly?

GUTENBERG: Very quickly. I would say after a half year, and after Arthur was in his right class and with his age group, he was happier. He went to the Pasadena schools, which were at that time among the best—of course I have no idea how they are now. Then he went to Berkeley, and from there into the war. When he came back, he got his PhD from Stanford. And my daughter also went to Berkeley; she was a bacteriologist, later on, with the Stanford Medical School.

TERRALL: And she married a doctor?

GUTENBERG: Yes, a surgeon. They're all medical. The son is a doctor and the two girls are registered nurses. One wanted to go into medical school, but my son-in-law discouraged her. He said, "If you want to be a good doctor, you have to give full time to it, and when you are married and have a family, you cannot do a good job of both." And she's very happy; she's in the cardiac unit at UC. She told me in her last letter that she is teaching other nurses from other units in cardiology.

TERRALL: What about yourself, though? Kids learn so fast; but it must have been hard for you to get to know people and be in such a strange place.

GUTENBERG: Yes, I had culture shock. Mrs. Buwalda said, "Mrs. Millikan called me up and said I should bring you to the Women's Club." That was for me, a nightmare at first. I mean, with the English. I was really not accustomed to the president and the chairmen of different departments and this and that. Also, once I cried when I came out of a drugstore, because I had wanted shampoo and I had bought something against lice. And here I was, on Colorado Street, when I read it, and I started crying. But there were very many friendly people. They were never

outgoing, at least not to me in the first year. But they were very good. I became very close friends with Mrs. Laing—Graham Laing was an economist. And Mrs. Lacey, Dean [William N.] Lacey's wife. And Mrs. [Arnold O.] Beckman. They were all good friends. Mrs. Buwalda. And I was very good friends with the first Mrs. Benioff and the second one, Mildred, too, because she was my husband's secretary. She lives in Mendocino and we are good friends; when she comes down here, we always have dinner together or something. And Lillian Richter was all right, but she was a little peculiar. She was a writer, you know.

TERRALL: I don't know anything about her.

GUTENBERG: She was a writer for *True Love* or one of those magazines. She wrote under the name of Lillian Brand. She was very funny. And then, in the department, Margaret Stock, Chester Stock's wife. And then I'm still very close friends with the Jahnses. He [Richard Jahns] was the dean of the School of Earth Sciences at Stanford. When I go up north, I always see them. Yes, we were all friendly. And Mrs. [Royal] Sorensen, who just died, was a very good friend. So I think it's very good to get out of your own department.

TERRALL: Was it through the Caltech Women's Club that you got to know these other women? Or were you just introduced?

GUTENBERG: I was introduced, or they called. At that time, we called on people. And Mrs. Lacey had a mother who visited her very often, about the age of my mother-in-law. And there were always luncheons and things. And Mrs. Beckman was always a good friend of Mrs. Lacey. When my son and I came back to make arrangements for my husband's funeral, Mrs. Lacey and Mrs. Beckman were at the door when we came. And I think we were good friends in the department. But we also had these other friends—the [Linus] Paulings and Roscoe Dickinson and Mrs. Dickinson. He was working with Pauling. We really were very close friends. He died very young. He came back from the war—he was I think in Panama—and had cancer, and died very shortly afterwards. She had cancer, too, and was very, very upset about it. We spent many days and many nights with her, because she said she would commit suicide, and she did. She was a pacifist, and her son, I think to spite her, went into the submarine service. My daughter just

recently told me over the telephone that she just saw Dorothy Dickinson—their daughter, who married a Pasadena boy and lives now close by my daughter. They had dinner together. And I said, "I didn't know that you were so close to Dorothy." She said, "Mother, she and I spent our teenage years together." So really, as I always said, Caltech is a close-knit family. I'm sure you have found that out.

TERRALL: You mentioned the Caltech Service League. Was that later or at that time?

GUTENBERG: When we came here, there wasn't anything. I really don't know the year. The other day, Mrs. Foster Strong called me about when it started. She said, "You know more about the Service League than I know." Franklin Thomas—Mrs. Thomas was another friend—Franklin Thomas started it, through the medical center we have there. He asked some women for lunch—I think the medical center was built already—and said that they should get interested and help the boys when they were in the medical center.

Begin Tape 2, Side 2

GUTENBERG: I forgot who was the first president, but Franklin Thomas started the Caltech Service League.

TERRALL: Were you involved in it from the beginning?

GUTENBERG: Yes. Just as a member, because I was interested, but then I took one job after another there until treasurer, and that I kept for twenty years. At that time, the boys came back from the war, and I told you about the barracks. We bought things for the children to play with there. And the students got taller and taller, so the beds were too short. We bought new seven-foot beds. And pajamas. And some people were on special diets and couldn't eat the food that was sent over from the dormitories. You couldn't eat baked beans and wieners when you maybe had the flu or something. I know one boy had to have steak, so he got steak. And we had the well-baby clinic. That is a tremendous savings for the students. There is a doctor. They used to have it every second week, but I understand they have it now once a month. They get all their shots free.

TERRALL: That's under the Service League also?

GUTENBERG: Yes. That pays the doctor and the nurse. The last time they had it in the biology building. And it's really a great savings. We even gave some money to some people who were in need of cash.

TERRALL: How did the financing work? Did you have fund-raisers?

GUTENBERG: Yes. We had fund-raisers—only once a year. The women did it all themselves—either a tea or a lecture or something like that. But the membership is only—I don't know how much it is now, I think $5 or $8. It used to be $2. But some people always paid more. A great majority paid $2, but a lot of them made gifts—$5, $10, and so on—and that's how we financed it. One graduate student—I think he was in astronomy—committed suicide on the campus, shot himself, and the parents wanted everything to go to the Service League to help a graduate student. Then there was the first physics teacher at Caltech—even before it was Caltech; when it was Throop—Lucien Gilmore. When she died, Mrs. Gilmore's family and friends sent some money, instead of flowers, to the Service League. We bought with the money a record player and records. I don't know where it finally ended up, in what dormitory, or maybe at Winnett Student Center. And when Mrs. Sorensen died, the family wanted, in lieu of flowers, money to go to the Service League. People are really very devoted to it, because they know what it did and how much it helped. I will tell you, quite a few students borrowed money. I remember one student needed $300. There was illness in the family. He paid it back later on when he had a job.

TERRALL: Were you involved in other campus things? Were you involved in the Caltech Y or the Women's Club or anything like that?

GUTENBERG: Caltech Women's Club, yes. I was president. And before that, I was hospitality chairman, treasurer, and some other things.

TERRALL: Did that take quite a lot of your time, between the Service League and the Women's Club?

GUTENBERG: No, about once or twice a month for board meetings. Now, treasurer of the Service League was quite a job. The money goes through the financial secretary, and she had to get the list ready for me. People would send in about twenty-five or thirty checks in the beginning. I remember it was a nightmare when I saw the books; I couldn't make head or tail out of it. Mr. Gilman was vice president, and Mr. Baker was financial something and he set up the books for me as they should have been. So that was a great help. And of course, they had to be audited every year. Mr. Baker—I don't know what he is now—but at that time he was under Mr. Gilman.

And I tried to help others during the war. I worked at the Washington School. You see, if the father was overseas and mother had to work, people brought their children to the center. It was like a nursery school.

TERRALL: Where was it?

GUTENBERG: On Raymond, where the Washington School is; I think now it's a junior high or a senior high. I went there twice a week; there was a teacher's meeting once a week when I took over the class. I did that all during the war, along with other things. So that took quite a bit of time. Some of the children came at six o'clock in the morning and they had their meals there. And then the father or the mother picked them up in the afternoon when they came back from work. I think they have it now again, maybe, for working mothers.

TERRALL: So they did away with that after the war.

GUTENBERG: Well, I don't know, but I quit; I thought now that the emergency was over it wasn't necessary for me. I work now, as I told you, for the Meals on Wheels.

TERRALL: How long have you been doing that?

GUTENBERG: Over ten years. I hope I can do that again, because I know it's needed. And if you read the Pasadena papers, you see always they're asking for volunteers. So that's my life.

TERRALL: I noticed in reading several accounts of your husband's life, that he did a lot of traveling to various places for one thing or another. I was wondering whether you went with him.

GUTENBERG: I went with him to Turkey and Israel. That was for UNESCO. We went to Paris first. We got our passports in New York, because they were special passports. We were there for about a week. We had to read everything about Turkey so we would know everything when we went there.

TERRALL: Was this with a group of people?

GUTENBERG: No, my husband and I. They asked my husband to come. Very close to Istanbul they have a seismological station, but very, very old-fashioned. The country is like California, and they wanted to find out what they could do to have better earthquake detection. They asked for my husband to come. We had already been booked on a boat to go to Brussels, where the International Geophysical Union meeting was. My husband was one of the officers on the board. So we had to throw everything out and fly to Istanbul.

TERRALL: You went to Turkey instead of going to the meeting.

GUTENBERG: We went [to the meeting] afterwards. And when we were in Paris, the delegate from UNESCO, who was the head of the Academy of Science of Israel said, "When you are there, can we ask you to come to Israel? We have the same problems." We had only about a week left before my husband had to be at Brussels. So we said we would. But at that time, Israel had only one plane.

TERRALL: When was this, the 1950s?

GUTENBERG: It was after Israel became a state, very early. It must have been the 1950s. He had to wait in Istanbul for two days for the plane to come, because they made out our tickets in Paris. We didn't have our reservations. Israel had a sports team—soccer or something—playing against another country, and they had to fly these people there first and then come back for us. So we were sitting near Istanbul, in a beautiful fishing village. If we hadn't had to wait for the plane, I would have enjoyed it. But they told us, "You go to bed, and we'll wake you up at one." At one, nothing. And the next day, in the morning, when we went down to the hotel, nothing. We finally flew up from Istanbul, I think, late in the afternoon. Then we had to go to Cyprus , because they were small planes.

We were first in Istanbul. My husband went to the station and said, "We had those instruments in Jena when I studied seismology!" The director was old, and the young people there wanted my husband to choose someone to eventually take it over. They had one person they wanted; I don't know where he was before—I think in Algiers or somewhere. He and his wife were both French. And my husband said, as they were talking about people, "You have one of the best men here—Dr. [Kazim] Ergin." He had a scholarship to MIT and then went to Caltech, and he got his PhD under my husband. He lived near Istanbul. And Beno said, "Why take a second-class man?" "Oh, no. He cannot become a professor." I don't know if you know how it goes—you have to be assistant professor so long, and work your way up. As a Swiss scientist said to me, "You have to wait until your boss dies until you can be promoted."

TERRALL: So in other words, this person was too young to be a professor?

GUTENBERG: He wasn't too young, but they couldn't make him a professor. It's not like it is here at Caltech, where you like someone, he does good work, and he can go from assistant professor to maybe full professor in a very short time. But in Turkey it was always the rule like Europe. You see, Turkey had a great influence from France.

TERRALL: You had to go up through the system.

GUTENBERG: Yes. They were also influenced by Germany. The older Turks—we met quite a few of these people when we were there, because we were there for about three weeks—the

older people spoke French, because they were trained in France, and the younger generation spoke German, because they were trained in Germany.

It was very, very interesting. My husband had to see the minister of labor and the minister of this and that, and he took me along, and I took notes because he had to give big reports to UNESCO when we came back. He said, "Will you take notes?" Even though I had to do it in longhand—just what was important. And in the evening he recalled that we talked about this when we were at this ministry, and he wrote it up, so he could write his paper later on.

And then we went to Israel, and it was the same thing. Of course then instead of a week he had only three days or four, and he didn't see anything. He worked really day and night. We knew quite a few people there—Professor [Judah Leo] Picard, who is the head geologist. We knew him from America, because he came to Caltech and acquired good relations with the geologists here in America.

And then we flew back—first to France to give the report to UNESCO and then to Brussels. There we had the international meeting, and that was for me very relaxing—very nice, dining and sightseeing. So that was one of the big trips.

TERRALL: Did you go back to Germany at all after the war?

GUTENBERG: I did; not my husband. I did a few years ago. Beno got the gold medal from Germany from the Geophysical Society, but he didn't go to the celebration, so they sent a man here, after they found he would accept it. My husband was very bitter about Germany. He didn't want anything. We could have reclaimed many things. But his only brother was killed for Germany, and he himself was four years in the army. We always did our duty to the country. So the German consul had a party; there were movie cameras there, and he gave my husband the medal.

I was there once, over a weekend, with my sister-in-law. We traveled together; we came from Switzerland. And I was invited to a celebration—I know I spoke to Lee DuBridge about it—when Frankfurt, where my husband was a professor, had an anniversary. But I didn't go. I would have gone, but I had just come back from Europe and I didn't want to go back. And when I went to Germany, they looked through everything in my luggage. That's, I think, the only time I was there. We were very close when we were in Belgium—and I was in Holland, and we were

in Scandinavia, in Norway. There I went with my husband to Oslo. There was an international meeting. That was very nice, and there was an excursion through the Jotunheimen Mountains, all the way around the different fjords, on meteorological boats and oceanographic boats. That was very nice and very interesting. From Oslo to Bergen we went by bus and by boat. And then we went to meetings in Italy. But I never went with him to New Zealand. Now I'm sorry. He was a foreign member of the Royal Society of New Zealand, and they invited him and sent him the ticket. I would like to have gone with him, but he said, "They feel that they have to pay for you, and we don't want to embarrass anyone; you better stay home." So I didn't go. There was another couple, and his wife went with him.

Then my husband taught one semester in Hawaii, mostly to government people on earthquakes and also some students at the university. The president of the Bishop Museum in Honolulu was a very good friend of ours. He was a geology professor at Princeton and when he retired he took the job as the president of the museum there. And he said, "Why don't you come to Hawaii? If the university and the government would invite you and. pay your trip, would you come then?" My husband said yes, because it would be interesting, and so we went there. At that time, you couldn't fly; you had to go by boat. It was just before Pearl Harbor. We came home in September, and Pearl Harbor was in December.

TERRALL: It must have been beautiful at that time.

GUTENBERG: Beautiful! And no crowds. It's terrible, when I see the pictures. One of my grandsons taught there, at the university, for just two years, and he worked on his PhD on the side. When he tells me how crowded it is, it's just unbelievable. They wanted to put us in a little hotel not very far from the campus. I said, "What would I do all day, sitting in a hotel?" So we got an apartment, and I had never lived in an apartment in all my life. So it was really fun. We had some other friends, not with the university there, and they took us all around. My husband should have gone to the Big Island, but then we had to come back here for the new semester and didn't have time enough, and, as I said, you couldn't fly; it's all by boat, and I understand it's very rough. So we didn't go.

TERRALL: To get back to Caltech, you mentioned last time about the change when DuBridge

took over. And you told me how you got very friendly with Mrs. DuBridge and how you thought that the whole social atmosphere really changed. I was wondering if you noticed other changes over time at Caltech?

GUTENBERG: It's much more active now, the young people in groups. I don't know how the dances and the things are. But that was never so before. I have a nephew who went through Caltech and he loved it. He was very devoted to Caltech. And some professors—especially Foster Strong—were very close to the students. The students are much freer now than they were at that time. I don't know what Millikan would have done when they arrived with long hair and things like that. It's a much freer atmosphere. But that's, I'm sure, true at other universities, too. I must say that when [Harold] Brown [Caltech president 1969-1977] was here, he said in his farewell speech that his wife, Colene, was much better than he was at understanding people. It was very hard to get someone after DuBridge who was very well liked by the students. Millikan didn't have too much contact with the students. There were some, like Pickering, and Vic [Henry Victor] Neher, who were very close to Millikan. Of course he was quite old and still did some work.

TERRALL: DuBridge was a very popular figure?

GUTENBERG: Very popular, yes. Mrs. DuBridge told me once how many people they entertained in their own home—the faculty, graduate students, undergraduate students, the freshmen. It was just an enormous sum of people. And then also we had an International Club at Caltech, right after the war—foreign students and American students—and that was very nice. Miss Gilbert—I don't know if you ever heard of her—she was the secretary to Franklin Thomas and then later on to Sorensen. She was very active there.

TERRALL: Were you involved in the International Club?

GUTENBERG: Yes. My husband was also interested in it. The DuBridges always had a wonderful Christmas party. And sometimes the Arabs and the Israelis would argue—I remember a Christmas party when the Israelis said that they had no Christmas but Hannukah and sang and

danced some of the things. And some of the Arabs walked out of the DuBridges' living room, but nobody paid any attention to it. Then they came back. Then later, I don't know who dissolved it or why.

My husband had a student from Mexico. He and his wife came here with two or three children. His father was the head of the geological survey in Mexico; another brother was a doctor. And they couldn't find housing. You see, everything was different. They finally lived on Fair Oaks or something, and we had them very often at our house, and she spoke quite good English. That helps. She was of Hungarian and Mexican descent. She also spoke very good German. They were active in the International Club. We also had at that time a lot of South American students from Lima, because they were not involved in the war, you see. And from Chile. One of these got his PhD from my husband; I don't know where he is now. You keep in contact for about ten years and then you say, "That's long enough!"

TERRALL: So the International Club was started right after the war?

GUTENBERG: Yes, or maybe during the war. No, it must have been after the war, when DuBridge was there. Because they had all these candles, you know, going up at the Christmas party, and all these different students talked about Christmas in their land. It was a very interesting group. When I came back from Turkey, they asked me to give a report about Turkey. They even had a little paper, like a magazine, with all the news. I had the notes, and my husband said, "You have more time than I. Why don't you speak about Turkey." As I told Richter, I hated it. But that was a very active, nice group. And you know also who was very interested in the group was Horace Gilbert. Because I remember he had people at his house. And I think Franklin Thomas was involved, too.

We were very good friends with the Einsteins [in the early 1930s]. When Einstein left, the money he had earned at Caltech was in bonds. At that time, the Nazis were already in Germany and. they opened his safe-deposit box and took all of Mrs. Einstein's jewelry and everything out, which she had inherited from her grandmother. At that time, the Einsteins thought they would go back to Germany. They went on a German boat and the German consul said, "Nothing will happen." They got off in Belgium; Queen Elizabeth of Belgium invited him to stay in Belgium, because they played music together. He asked me if I would take care of the

money.

TERRALL: The money he had earned here?

GUTENBERG: Yes.

TERRALL: He didn't want to take it back with him?

GUTENBERG: No. They [the Germans] would have taken it. And I said, "Certainly." It was all in some bonds. He had never been in a vault, in the safe-deposit part of a bank. We were at the Security First National; we went down together, because he had to sign that I could go to the safe. The interest was twice a year, I think, on these bonds. I cut off the coupons and put it in the checking account. So he had to sign. And he said, "Ah! And that is where people trust their money?" He was like a child. I did that when they went to Belgium, and I sent them the interest every so often—once or twice a year. When they had been quite some time at Princeton, I wrote that since they were now here [in the United States], could I empty the safe-deposit box and close the checking account and send it to him. He wrote me the nicest letter. I don't have it anymore, because he was just a friend and I had answered him. I have this picture with his name on it, and I have another in my guest book with his name on it, and I have a big portrait of her and him up in the closet. I asked if I should transfer it to Princeton, to his house, or to a bank, whatever he wanted. He thanked me profoundly and said, "You did a much better job than I would have done." Of course he didn't want me to take the time and everything, but he said I should transfer it to his house.

TERRALL: You got to know them here, or did you know them before?

GUTENBERG: No, I knew them here, when they came here, through our physician who was a very good friend; he knew Einstein in Berlin. Then another lady, who was a neighbor of Mrs. Einstein's parents, lived in San Marino. So I met her through them. And then in '32 we visited them at their summer place near Berlin. He had his sailboat there, right on the lake, and the house was up above. Then we also arranged a lot of musical evenings for him at our house on

Ninita Parkway—quartets and trios, or just piano. My husband never played with him, even though my husband played very well.

TERRALL: What did your husband play? Piano?

GUTENBERG: Yes, I had a grand piano; I gave it to my daughter—a Bechstein from Germany. We had even two pianos for quite some time.

Begin Tape 3, Side 1

TERRALL: So you saw quite a lot of Mrs. Einstein while they were in California?

GUTENBERG: Yes. You know, they were wined and dined. And he really liked very plain food. Very often I picked her up on Saturday morning, went shopping, and she bought some lamb chops or something very plain. She cooked it at my house and brought it over to the Athenaeum, and they ate in their room. And there was this very funny story that my husband and Einstein—it was the other day in the paper. My husband had never experienced a big earthquake—you know the story?

TERRALL: The story is that they were walking along and didn't notice the earthquake until someone told them about it.

GUTENBERG: Yes. Richard Tolman told them, "Now you have your earthquake." My husband had done some field work, and he and Einstein were talking about the field work with artificial explosions, you know, to start an earthquake. My husband said, "That wasn't here? There was an earthquake someplace?" And Einstein said, "What earthquake?" And Tolman said, "Now." And the next morning Mrs. Einstein and I went to do a little shopping, and she said, "What do you say about our two dumbbells?" They were in Japan the year before, and he had always had hoped there would be an earthquake that he could feel, and there wasn't any. And here was the big Long Beach earthquake [1933], and they didn't feel it! Of course, there were a lot of aftershocks.

Einstein was really a very kind man, childlike. One evening we had dinner with only two

or three very close friends, and they were talking about what was the worst time in life. They were all from Germany. Someone said, "Oh, going through the *Gymnasium* in Germany, through the schools in Germany, was a nightmare!" Einstein, I think, had had to repeat a class or something. So he said, "That was a nightmare, going through school in Germany," and then he said, "There were really two nightmares for me. Once when I was married to a mathematician and I am also a mathematician. That was also a nightmare!" His first wife [Mileva Maric] was a mathematician in Zurich, and they had two sons. One was a professor; he was here at Caltech for quite some time. He worked with [Vito] Vanoni in hydraulics. Then he went to Berkeley. He died in Boston of a heart attack—quite young. He and his wife had two children; I don't know what became of the girl. She was once in *Time* magazine—anti-war, against Vietnam. But they sent both children to Switzerland to school before going to the university, because when the son didn't know something, people would say, "And you are the grandson of Einstein! How can you not know it?" So they took the children out and sent them to Switzerland.