



Ora Lee and Frank Marble, 1988

FRANK E. MARBLE
(1918–2014)

ORA LEE MARBLE
(d. 2014)

INTERVIEWED BY
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October 22, 1997

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Subject area

Engineering, aeronautical engineering, Tsien

Abstract

An interview in one session, October 22, 1997, with Frank E. Marble, Richard L. and Dorothy M. Hayman Professor of Mechanical Engineering and Professor of Jet Propulsion, Emeritus, and his wife, Ora Lee Marble, concerning Tsien Hsue-shen [Qian Xuesen]. Tsien earned his PhD in aeronautics at Caltech in 1939 and in 1950 was the Robert H. Goddard Professor of Jet Propulsion. The interview begins with the cancellation of Tsien's security clearance in 1950 for involvement with the Communist Party and chronicles events leading to his deportation order and eventual departure for China in 1955 with his family. The Marbles' relationship with the Tsiens lapses but contact is reestablished in 1982, as Frank and Oral Lee Marble spend several months in China in 1982; details of that trip. Subsequent trip back to China by the Marbles in 1991-1992 finds Tsien's health failing. Founding of library in Tsien's honor; Marble succeeds in returning Tsien's papers—which he has kept personally—to China. The interview includes personal reminiscences on the Tsien family, including Jiang Ying, Tsien's wife, a musician and opera singer, and Tsien Yucon, his son, who earned a master's degree at Caltech.

Administrative information

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CALIFORNIA INSTITUTE OF TECHNOLOGY ARCHIVES

ORAL HISTORY PROJECT

**INTERVIEW WITH
DR. FRANK AND MRS. ORA LEE MARBLE**

BY SHIRLEY K. COHEN

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Ora Lee and Frank Marble, 1988

CALIFORNIA INSTITUTE OF TECHNOLOGY ARCHIVES
ORAL HISTORY PROJECT

Interview with Dr. Frank Marble and Ora Lee Marble
Pasadena, California

by Shirley K. Cohen

October 22, 1997

Begin Tape 1, Side 1

COHEN: Well, good afternoon Dr. and Mrs. Marble. I'm delighted to have you here and delighted to continue our conversations about your friendship and dealings with Dr. Tsien Hsue-shen [Qian Xuesen¹]. So I'm going to let you lead off right away. Tell us about Dr. Tsien's years here at Caltech.

DR. MARBLE: Well, I think one reason that I'm rather interested in recording these events is that due to the relationship between the Tsien and the Marbles before the Tsien left to go back to China, we have had unusually easy access to them in China, whereas other people haven't. Consequently, the experiences we've had there are probably unique in some way. I think it's a good idea to record them before Ora Lee and I forget them totally. [Laughter]

Let me start at the time that Tsien received his notice that his security clearance had been canceled [1950]. The subsequent events led to a hearing by the Immigration and Naturalization Service, which led to a deportation order, which was to be carried out five years later. I think that time period was actually specified, although some have indicated that it was an open date. So at the time of the hearing, Tsien's circumstances, through the newspaper and otherwise, became known. He was accused of having joined the Communist Party. And in 1946 he had returned to China, to marry Tsiang Ying [Jiang Ying]. When he re-entered this country he had failed to mention his membership. So this was the grounds for the 1950 hearing and the grounds for his deportation order.

¹ The Wade-Giles spelling of Chinese names, the standard before 1998, will be used throughout the interview, and only followed in the first instance with the pinyin conversion, found within brackets.

The complications of that deportation order and those accusations were such that a lot of people who had security clearances and otherwise at that time were reluctant to be close to Tsien—that is, to continue their old association with him. As a matter of fact, one of the security officers for the navy who was in contact with me regarding security and such, said that I could retain my security clearance provided that I sought out Tsien only in the very most necessary business interactions and certainly not in a friendly way.

COHEN: So they really were looking at all the people around him as well?

DR. MARBLE: Oh, yes. They wanted to make sure—because during the five-year grace period he was supposed to lose contact with the classified work in the country. He had certainly been right on top of all-important classified work, so this was supposed to be a time when he lost contact. That would be facilitated somewhat by losing contact with those of his friends who still retained a security clearance and who were active in security work. But Ora Lee and I decided that that was probably a foolish thing to do. So we kept our contacts with the Tsiens, realizing that they would need a lot more help and advice under the circumstances in which they were going to have to live for the next five years than they had previously. And one of the unfortunate things was that the lady who owned the house that the Tsiens rented—this was Esther Gilbert, Fred Lindvall's secretary—when Tsien's situation burst upon the newspapers she asked them to move out of the house.

COHEN: And that was because of his trouble?

DR. MARBLE: Well, she did not say so. But the timing couldn't have been less advantageous. And I sat down and talked to her about it, but there was no question that it had to be done. So Ora Lee and I set about trying to find them a house to live in. And that's no easy chore when a man's picture is in the newspaper and he's accused of being a Communist, Chinese, and all that. Chinese were hard enough to place in houses, but a Chinese who was accused of being a Communist was even harder. After quite a bit of chasing around and quite a bit of work and talking to folks, we found them really quite a nice house. I think it was on Madison?

MRS. MARBLE: I think it was.

DR. MARBLE: It was on North Madison. Consequently, they moved in there and gradually got used to it. The neighborhood was a little different from the one they had been in in Altadena, but they got used to it. And this and other things—our frequently having meals with them and their having meals with us—led to a friendship which was fairly close. And the intimacy grew to the extent that we learned quite a bit of what their background had been. We knew their children—by that time, they had two children. We got to know them very, very well. Our families frequently went down to Chinatown. We even took them out into the mountains several times to ride around, which was against the restrictions, because he was not supposed to move more than twenty-five miles from his home or from Caltech, I don't remember which. But we didn't worry about that. We just took them off and—

COHEN: Was there any sense of somebody watching all this all the time? Was there any sense of anybody monitoring this?

DR. MARBLE: Oh, I'm sure that the FBI monitored it. The Tsiens claim that their phone was tapped. And they frequently were conscious of the phone-tapping. And I think that's undoubtedly true.

So, we were very, very close to them. The last year of their stay here, the Flemings, Lou and Jean Fleming—Jean was the daughter of a notable family in Pasadena and Lou was an editor for the *LA Times*—and he was sent to either Rome or the Vatican for a year, or a couple years. So their house, which was on Knollwood, was available. And it was a much preferable house—a beautiful house. So the Tsiens moved up there for that year. Then the Flemings came back—oh, I'd say a couple months before the Tsiens were leaving. So the Tsiens moved in with the Marbles. So we all ate Chinese food, and Ora Lee learned how to cook Chinese, and we had a marvelous time.

COHEN: Now, he continued to work during this whole period? He had his office here at Caltech?

DR. MARBLE: He continued to work. And [Caltech President Lee A.] DuBridge was, I think, excellent. The Board of Trustees, I think, wanted to throw Tsien out. But DuBridge stood up for him very valiantly, and I know he took his knocks with that, too, because Tsien wasn't always friendly about these things—he took a very dim view of it. But Tsien kept his office here and he worked just phenomenally hard. I mean, his productivity was just out of the ordinary. He wrote two books in that time. He published innumerable pieces of work that were really high-class things. He had PhD students.

COHEN: So he never had trouble professionally, getting his work published or anything like that?

DR. MARBLE: Oh, no. There was no question about that. He just had no contact with classified work. Some of the work he did bordered on items that were classified, or security guarded, or something of this sort, but he didn't worry about that. He just went on with his work, and very, very excellently.

Well, the time came to leave [September 1955]. So we drove them down to the boat and took along an enormous basket of fruit and candy and canned things and all that from Jurgenson's. It was so big you could hardly take it. So they took this on the boat. And it's rather interesting in a way, because I believe in this book of Iris Chang's—this unfortunate book of Iris Chang's [*Thread of the Silkworm*, Basic Books (1966)]—she talks about the horde of people who came down to see Tsien off. Well, that's complete nonsense. Ora Lee has a picture of about the four or five of us who were actually there. Duncan Rannie, the Marbles, I think the Wus [Theodore Yao-Tsu Wu, then assistant professor of applied mechanics], and that was just about it. Maybe there were one or two Chinese students. But that was it. So his going off wasn't a big festive occasion. And as he walked onto the boat, he turned around and shook hands with me and said, "Frank, I'll see you in twenty-five years." That was it.

COHEN: You know, I heard a rumor. Just let me ask you this.

DR. MARBLE: Sure.

COHEN: The rumor was that the government really didn't want to send him back, because he did know too much. But he was exchanged for Americans held captive from North Korea. Is there anything to that?

DR. MARBLE: It's very hard to document that, but I believe that Mrs. Tsien was convinced of it. And I believe there was some actual talk about this. And there were, going on at that time, negotiations about China returning people who had been shot down during the Korean War. There are so many people, and so many really reliable people, who heard rumors or facts or little bits of information about that, that I tend to believe it was true. But I don't know how much that had to do with the date that he went back. I think the government took advantage of it, because they had come to realize along the way that China wanted very much to have him back, and there were great plans for what he would do when he got back. So I think the probability is that that's right, but I can't document it. I don't know of anybody who could, except maybe somebody in the Department of State. Although I've had some discussions with people in the Department of State and they seem to know even less than we do about it. So I don't know.

We had numerous wonderful letters from them on their way back. Is there any one you want to read a little bit of?

MRS. MARBLE: Well, I was just going to say that they felt they had to show their solidarity with the Chinese, so they went third class. And what they did with that large basket, I don't know. [Laughter] "The ship is very crowded indeed. The third class has about 300 passengers."

COHEN: Now you're quoting from one of these letters?

MRS. MARBLE: Yes. "Every seat in the lounge, the only place air-conditioned, is occupied with little fellows running and yelling. I think Yucon [Yonggang] and Mei-mei ["Little Sister, Tsien's daughter, Yung-jen] are hardened travelers now. About forty percent Chinese, forty percent Japanese, and twenty percent Filipino." Then later, they speak about deciding that they had shown their solidarity long enough so they were

moving to a private stateroom. [Laughter] But it wasn't until they got to Yokohama, I think, or someplace like that—

COHEN: Now, who paid their way back? The immigration people?

DR. MARBLE: Immigration would have, but Tsien was very proud. He paid his own way.

COHEN: And, of course, he had been getting a salary here at Caltech all these years?

DR. MARBLE: And he took all of his money back, too. That, I'm sure, is how they were able to move into a first-class stateroom. I thought maybe it was in Honolulu.

MRS. MARBLE: Maybe it was. "Third class is hot and dirty. So we are going to enjoy what the American civilization can give us." Yes—Manila, actually. "Our demonstration of solidarity with nearly twenty-five other fellow returnees has gone far enough. And Manila, which turns out to be an important stop—one and one-half days in port—is reported to be very hot. Third class is hot and dirty."

COHEN: So they moved up. I see. So he was with a lot of people that were also being deported?

DR. MARBLE: Or going back. Some of them willingly—

MRS. MARBLE: They called them "returnees." I don't know.

COHEN: Then did you continue to hear from him when he got back to China?

DR. MARBLE: Yes. You have letters from him?

MRS. MARBLE: Various cards and messages. '55, '56, '57. I think there's more stuff than I have here, but this is what I found. '59—

DR. MARBLE: Now, '59—that's Amy Wei [?], isn't it?

MRS. MARBLE: That was Amy Wei, Ying's sister.

DR. MARBLE: We have to say a little bit about that. After a while, writing back and forth to the Tsien's became a questionable thing. And we didn't hear from them for a while, but Ying had three sisters. One of them lived in Minnesota, one of them lived in Richmond, Virginia, married to an industrialist there. And one of them lived in—

MRS. MARBLE: Belgium.

DR. MARBLE: Right. Belgium. She was the one who was able to go back to China. She went to see them, and then after she got back to Belgium she wrote to us about it. She kept us informed during the years when writing back and forth was maybe not in his best interest.

MRS. MARBLE: And we saw her in Belgium. We still hear from her.

DR. MARBLE: So that's the background of our relationship with them. Now, at roughly the same time, the chore fell to me to clear the things out of Tsien's office, because somebody else had to move in there—the space was needed. In the process of this, I picked up all of the manuscripts that were in there—the original manuscripts of Tsien's work. I knew what he'd done with them. He put them in large, brown envelopes and tossed them up on a shelf, rather carelessly. So I had a pretty good idea of what they were worth—what they were—and I had no interest in throwing them away. So I set those aside. I got a file cabinet and I put these various things in it. And then, subsequently, either Clark Millikan pointed out a file to me, or, I believe, they were possibly files that were left over in Tsien's old office from 1946 when he left Caltech to go to MIT. Because these old things were stuck in there, and the papers dated from that time. I knew Tsien's work well—I knew it very well. So there was no problem in taking these documents and relating them to the published works. So I was able to do that, and by the time I got done there were two four-drawer files full of Tsien's notes and papers, and very well-organized.

COHEN: He didn't take any of this back with him?

DR. MARBLE: No. Part of his problem had been that before the security cancellation, and before he was picked up by the Immigration and Naturalization folks, he had planned a visit back to China, and he was taking some things along with him. They picked up things that they thought were classified, worrisome technical things that he was taking back to China. This was when he went of his own accord—a temporary visit—his father had not seen the grandchildren and his father wasn't well, things of this type. So later, in 1955, he was very wary about taking anything back that might stand in the way—any technical material. He took none. A lot of it was put into the library, but as far as his original manuscripts went, I kept all of those.

The first contact I had from anybody in China after the Cultural Revolution came as the result of a visit from the People's Republic of China to the University of Cambridge on the 7th of October, 1972. Ora Lee and I were in Cambridge that year—the year of '72-'73. Professor Hawthorne [Sir William Rede Hawthorne] somehow got involved, or was meeting this delegation from mainland China—which was, I think, the first visit of the mainland Chinese outside after the Cultural Revolution—and he knew that one of these people, Ch'ien Wei-Zhang [Chien Wei-zang], had been at Caltech. So he asked me, "Do you know him?" And I said, "Yes. I know Ch'ien Wei-Zhang. He was at Caltech during the summer of 1946, when we got there, and went back somewhat after that, and I knew him well." And I said, "Of course I'll meet with Ch'ien Wei-Zhang." So we met, just like old friends, and we went off from the rest of the group and wandered around talking about the Cultural Revolution and what was going on in China, and what had happened to our old friends over there, and all of this. And we had a marvelous day. It encouraged us a great deal to hear that things were not as bad as the press had indicated, at least as far as the Tsiens were concerned. Then in 1980 or 1981, we were contacted by the Chinese and invited to—

COHEN: Now, you did not hear from him directly during this whole period?

DR. MARBLE: No, we didn't hear directly. We heard from Ying though, didn't we?

MRS. MARBLE: There probably was a period when we didn't, because of the Cultural Revolution. Things were very difficult. And I haven't bothered to go through and see— [ruffling of papers] that's Amy. Let's see.

DR. MARBLE: It seems to jump to later times.

MRS. MARBLE: And, as I said, I may have other things tucked away someplace.

COHEN: But in general, there was very little contact between American scientists and Chinese scientists?

DR. MARBLE: That's right. It dropped way down. So then we got the invitation to come to China to teach in the new Graduate School of Science and Technology, which was under the Academy of Sciences.

COHEN: Now, that invitation was from the Chinese Academy?

DR. MARBLE: It was, yes. What they were trying to do was to develop a small school which was somewhat similar in structure to Caltech, because there were so many Caltech folks there. In contrast to Tsinghua University, which was sort of in the image of MIT. It was a big technological and engineering school, and they wanted the smaller one. So we jumped at that, and I went there to teach in 1982. We agreed to come for three months and we actually stayed almost four. But we were there for enough time to really find out how things went. We went there in early August of 1982 and stayed almost to the end of the year.

Well, I think I told you a little bit about that trip before. The details of the trip are less to the point than what our relationship with the Tsiens was. Tsien was by that time a member of the inner party—the inner Communist Party—and they were having their five-year convention, or whatever it is. So he was unable to break himself loose for the first week we were there. We saw his wife. Ying came to our hotel in Beijing. We were put up at the Friendship Hotel, which was an old building that was originally built for the Russians who came to stay there—the Russian scientists. And as far as we were

concerned, it was primitive but perfectly adequate. We've stayed in places in China, much later, that were much worse. It's in the northwest part of the city, out by some of the academies. It's a fair ways out.

MRS. MARBLE: It's actually a big compound, and we were in one of the buildings. There's a tourist hotel, and then there's one for foreign specialists and for news people.

DR. MARBLE: Later, I think during the second week, we heard from Ying that Tsien and the rest of the family would be there that evening. So we were looking forward to this reunion very, very much. What went through my mind, and I may have said this on the earlier tapes, was that it had actually been pretty close to twenty-five years—1955 to 1982—surprisingly close. But anyway, during this time we had had very different experiences and lived in such different circumstances. Would our old, easygoing friendship and discussions resume? Or was that something that just wasn't going to happen? Were our points of view so different that we couldn't take up roughly where we had left off? So I'd say that for the first half hour we sort of sparred. We talked about this and that and things that had happened in the United States. He talked about things that had happened in China. He asked about people. I think, at the end of that half hour, we both knew that there was no obstacle.

COHEN: I think you did speak to that.

DR. MARBLE: We could be just as free as always. And the consequence was that we had a marvelous time. We saw them every weekend. They would pack up a lunch and on Sunday we'd go off into the hills or go to a museum—something of this sort. There was an excellent interaction between us.



Tsien Hsue-shen and Frank Marble, in the Fragrant Hills near Beijing, 1982

COHEN: Did you talk science?

DR. MARBLE: We talked some science in a general way, yes. Certainly one is very careful not to get involved—both from his point of view and from mine—with any classified work or things of this sort. But we did talk about scientific things—about technological things and what was of interest in the U.S. at that time and what developments were going on. And he was very well aware of most of it. I think the information flowed in and out of China reasonably well. And also, his English was far better than we had been led to think.

COHEN: I think you mentioned that, too. He even used recent vernacular, I think.

DR. MARBLE: So we felt that he had misled us a little bit in saying that they never used English at all.

MRS. MARBLE: Their children didn't know it, but they kept it up.

DR. MARBLE: So this was a rather wonderfully interesting time. But a situation emerged, which had to do with the fact that, after about three years there, after he had established the Institute of Mechanics, which was developing rockets as well as other pieces of equipment, he was asked, or brought, into the military. He moved from the civilian portion—from the Academy of Sciences—into the military side. Now, his friends there—many of these people who worked with him or for him at the institute—took a very dim view of this, because he separated himself from that. And because of his attachment to the military, they moved him into a military or a special-person compound, and he was not able to see his old friends on weekends. And they all felt that he had sort of deserted them. We heard that from the people there, but we were not actually too aware of what the break or change meant. We got a little bit of the idea when Ora Lee suggested, again and again, how nice it would be to see the house, the compound, and the area where they lived. Well, Chinese are not always willing to say, “No, it's impossible.” They say something like, “Oh, it's very difficult.” And one night when we brought Ying home in our car, she wouldn't let us drive up in front of the area where she lived. She got out a block or so away and walked up, so that she wouldn't be seen getting out of a car with Westerners. So we began to get the idea then that the separation was a significant one.

Now, I think at that time I mentioned to Tsien that I had all of his papers and documents and I thought that they would be very interesting to Chinese students and they should be shipped back to him. And he said, “Oh, Frank, American students need that much more than Chinese students.” That was a nice way of saying, “No, I don't want to have anything to do with that.”

COHEN: This was in '82, when you were—

DR. MARBLE: This was in '82. In subsequent years, after we got back, I contacted some of the Chinese and told them about this and that if he ever softened a little bit, why, it'd be very good to have them. Now, in '90 or '91, we went back again for a period of a month.

COHEN: On your own? You were tourists?

DR. MARBLE: No. We were again invited by the academy and the Institute of Mechanics, and I gave a series of lectures. Then we took a tour of the aeronautical laboratories in northern Szechwan and northern Hunan, which was a very arduous trip. But we saw Tsien while we were staying for a week or so in the Friendship Hotel. We saw him only once, and that was at lunch. He and Ying met us in his offices, which were there in the Friendship Hotel at that time—very spacious offices. And as we walked from his office to the place next to his office, the conference room where they serve lunch—

MRS. MARBLE: A banquet.

DR. MARBLE: A real banquet for lunch. He said, “Frank, these offices were recently vacated by Prince Sihanouk when he went back to Cambodia.” [Laughter] And he chuckled about that. But at that time it was clear that he wasn’t walking as easily as he had. He was no longer able to go climbing in the mountains. It had only been eight or nine years since I’d seen him—something like that. And he talked about it. He had trouble with one of his hips. He didn’t know how bad it was. It turned out that it was degeneration of the bone structure. And also his hearing was quite bad. He made jokes about that—about how Kármán’s hearing had been bad, too, so he didn’t feel too badly about that. But I think even worse was his wife’s hearing. It was poor.

COHEN: And she was a musician.

DR. MARBLE: Yes.

MRS. MARBLE: She still is. She still teaches.

DR. MARBLE: She was the head of the vocal music department at the Beijing Conservatory, so this was unfortunate for her. That visit indicated to us that Tsien was not doing all that well as far as his health was concerned. But mentally, as far as his

work with the government and the military and the Academy of Sciences went, he was perfectly with it.

Even on that second trip, he was still reluctant to—I mentioned his files to him again, and he was not interested in having them. He wasn't interested at all. So from my point of view, that sort of ended it. And his friends there said, "No. He's set against that. He's not really interested in that."

I should mention that a few years before that second trip, we heard from his mother that Yucon, their son, was interested in coming to Caltech and had written to [Caltech professor] Carver Mead wanting to work in computer science. That was August of 1985. Yucon wanted to come, and the contact with Carver Mead was favorable. Carver had a fellowship for Chinese students that he said he would be happy to consider Yucon for. But his application didn't come. So I wrote to the Tsiens. I wrote to Tsiang Ying and said, "Where is the application?" It turned out that they had mailed it with plenty of time to get here, but it hadn't arrived. So I called her on the telephone and said, "Ying, we have to have that application, because the final date for applications is up. I mean, it's right about now. And we can pull a little bit of rank for Yucon, but not too much." So in the end what happened, after two or three copies had not arrived, was that I said, "Ying, you call me one morning when you're able to, and I'll copy down the information and we'll fill out the application here." We did. I took the tape—I had the call taped—so I took the tape and the transcription of the application over to the dean of students, and he said, "OK, OK, no problem." So that's the way Yucon made his way in. And then I told her to fill out another of these forms and give it to one of the airline hostesses on China Air and have them fly it from Beijing to here and then mail it in San Francisco. That one came through. Somewhere or another there had been a hitch. We never found out where or how or why there was a hitch. So Yucon came, and we did everything we could for him. It was not a successful adventure for him, because his English was so poor. He roomed with three other Chinese and got no exercise in either his English speaking or his verbal understanding. He worked very hard. He completed a master's degree, but he was not admitted for the PhD. And he eventually went back to China.

COHEN: How long was he here?

DR. MARBLE: Two years—more like three years.

MRS. MARBLE: He worked up north for a little while.

DR. MARBLE: He got a job in San Jose.

COHEN: But they didn't stop him from coming. I mean, although they stopped his application, they didn't stop him. That's interesting.

DR. MARBLE: That's a rather interesting thing. Yucon was born in the United States and his sister was born in the United States, and they had American passports. It turns out that they had never given up their American passports. Not only that, but Ora Lee was able to go down—

MRS. MARBLE: Well, I went down to the city and got copies of their birth certificates.

DR. MARBLE: So as a result of this ammunition, they were both able to come in.

COHEN: And the Chinese let them out.

DR. MARBLE: The Chinese let them out. Yes. But I think the fact that they had the American passports certainly helped.

MRS. MARBLE: It helped in Janie Quo's [?] case, too. So there are other incidents.

DR. MARBLE: Cases where that happened, yes.

So after we got back from the second trip, the Chinese decided to honor Tsien by dedicating a new library to him. And I have a copy of my letter here: "I'm delighted that there is agreement by Tsien, you, and your colleagues that the Institute of Mechanics will provide a permanent home there for the research, notes, and manuscripts from Tsien's time in the US."

COHEN: Now, that's the first you heard about it?

DR. MARBLE: Well, that's my reply to them. Their letter came on December 23, 1992. It said, "Recalling our discussion of several years ago, I think perhaps the time is right that something can be done about H. S. Tsien's manuscripts." That was the letter from the Institute of Mechanics. So that started things going about getting the manuscripts back to him. Now, there was an enormous weight of them—an enormous bunch of them—so it wasn't exactly clear to any of us how to send them. We were a little afraid of shipping them. We weren't about to carry them as excess baggage on the airliner because of all the weight. But it transpired that the man who wrote this letter, Cheng Chemin [Zheng Zhemin], was here. He packed up two big duffel bags and put the most important of the manuscripts in there and took them back as excess baggage on China Air. I got a letter subsequently letting me know that they had gotten back safely. So that was one step in the right direction. Then came the idea of this library to honor Tsien. I have a copy of my letter that says, "Ora Lee and I are honored to be included in the inauguration of the Tsien archives. We would not miss the event for any reason."

Begin Tape 1, Side 2

DR. MARBLE: "We could not leave Pasadena before October 22 and should be home by November 12. Our preference is between October 28 and November 10." This was now 1995. Now, the thing I was unaware of was that they were trying to organize it so that we would have the celebration during his birthday, which would have been on December 11.

COHEN: And that was his 80th birthday?

DR. MARBLE: No, that would have been his 79th birthday. So then there was a great correspondence between myself and the people at the Chiao Tung [Jiao Tong] University. Now the Chiao Tung University was in Shanghai when Tsien did his undergraduate work there. And they claim him as their student, which is fine. But for a variety of reasons, the Chiao Tung University had moved to Xian. This archive or library was to be

constructed in Xian. Then, unfortunately, we had to cancel our planned trip. And then we planned to go in the spring of '96.

MRS. MARBLE: They kept postponing it.

DR. MARBLE: They kept postponing the event. We did plan to go there in 1996, but we lost our daughter at that time, so we were in no shape to go. And I had written comments for the dedication of the library at Chiao Tung University. And they did dedicate the library at that time, and my comments were read by Cheng Chemin. So that went off all right. But then it turned out that they still wanted us to come, and we were to come for December 11, 1996, which is what we did.

COHEN: And that was the eightieth birthday?

DR. MARBLE: That was the eightieth birthday. Even though it was a very short trip—from December 3 to December 14—it was a very important trip. In the first place, it was Tsien's eightieth birthday. Secondly, because of his health—his leg had deteriorated to the point where he couldn't walk—he was unable to get out of his own home. So a special privilege for us was to go to his own home, finally, and see it.

COHEN: Finally, after all these years.

DR. MARBLE: We made it there. So that was important. Then we got to see, as a consequence of that, the people he worked with—the circle of people that he had around him for his scientific work. So we made two trips to his home. We went first to see him before his birthday and had just a very, very nice visit with him, and then we went to another part of the house. Tsiang Ying had a music studio there, out of which she taught, and she had one of her students sing for us. And Ora Lee is always happy to—you can tell about it.

MRS. MARBLE: He was from Tibet.

DR. MARBLE: Yes, he was from Tibet. And he had the most powerful set of lungs you can imagine.

MRS. MARBLE: In a smallish room.

DR. MARBLE: He almost drove us out of the house. [Laughter]

COHEN: Maybe you get big lungs if you come from Tibet.

DR. MARBLE: Yes, because of the altitude.

MRS. MARBLE: She said, "I'm going to have to work with him on his softer tones."
[Laughter]

COHEN: Was this a luxurious home?

DR. MARBLE: No. That surprised us just a little bit. Incidentally, none of our friends came with us there. The other friends were not invited. We were, and we came with some of the people that were close to him, and also part of the military.

MRS. MARBLE: And his secretary.

DR. MARBLE: His secretary, yes. So we got there and went in the entrance. It looked just like a place that others of our friends from other parts of Beijing lived in.

MRS. MARBLE: Apartment buildings.

DR. MARBLE: Yes. The only difference was that instead of having one of these sets of rooms, they had at least three or perhaps four.

MRS. MARBLE: Well, they had two, and then one up, I think. We didn't see the one up.

COHEN: So they had incorporated several units so they could have a larger space.

DR. MARBLE: Yes. The furnishings were not out of the ordinary. The piano was one that Tsiang Ying had brought from the United States. She had bought it here and she took it back with them. She still is using the same one. And the furniture was modest. The whole thing was quite modest.

MRS. MARBLE: The rooms weren't very big.

DR. MARBLE: No. So our picture of the—

MRS. MARBLE: But they still had the guards outside.

DR. MARBLE: Yes.

COHEN: So he still had his position secure in the military?

DR. MARBLE: Oh, yes. Now, this organization was called COSTIND. It's the Commission on Science, Technology, and Industry for National Defense. They were the ones who sponsored our trip this time, not the Academy of Sciences.

COHEN: So this must have been a personal request from Tsien, I would gather?

DR. MARBLE: I would guess so. This was, at least, organized by that group. And during this trip a great deal was made, in the Institute of Mechanics and in Tsien's home, about all that we had done to preserve the manuscripts. And Tsien was very flattering in this and obviously was happy that they were there, and the Committee on Science, Technology, and Industry was very, very happy. So there were all sorts of flowery compliments and praise and thanks and whatnot. That was the first day we were there. He had many of his young people there. He had a group of six young people that worked with him—"young people," meaning fifty years old or something of that sort. [Laughter]

COHEN: Well, there's that whole generation that was missing from the Cultural Revolution, of course.

DR. MARBLE: Humorously, one time, I called them “the Gang of Six.” And they thought that was hilarious. [Laughter] And we spent quite a bit of time talking about the kind of work that Tsien was interested in, which was a very generalized version of systems analysis of applied scientific and social problems—in fact, applied to the whole development of China as a social, industrial, and military complex. So that’s why all of these other young men were active in it and also why it was associated with the military. Then we came back the second day, the second time, for his birthday, which was very nice. We talked about old times. We had lunch. The six people came around then. And his niece or cousin—

MRS. MARBLE: Yes. I think she was a cousin. I was never really—

DR. MARBLE: She was—

MRS. MARBLE: Very charming.

DR. MARBLE: She was a charming lady who Tsien said, as a little bit of a joke, was “a Marxist philosopher.” Anyway, we had a very pleasant morning there and had a lunch with long noodles—with the long noodles came a long life. We had a great time over that. And then at about half past one we said goodbye and went off. We were succeeded there by Jiang Zemin, the President of China. He came to pay his respects to Tsien at that time. There was a picture in the paper the next day of Jiang Zemin sitting beside Tsien there. Ying said, “You know, Frank, that’s exactly where you were sitting.” [Laughter]

MRS. MARBLE: He stayed, apparently, for an hour or more. So it was quite—

COHEN: Significant.

DR. MARBLE: Yes. And that was the end of that. And the probability is that we won’t get back to China to see Tsien. Oh, I should say also that we had brought the remainder of the documents with us as excess baggage. So everything is now back there.

COHEN: Do you have any feeling about why he didn't want those documents in the beginning? Do you think he was afraid of them getting lost, or did he just want to burn his bridges because he was so angry?

DR. MARBLE: I don't think he personally cared about them a whole lot. And I think he saw it as a bit more of a sentimental act. And the Chinese at that time, in the eighties, were still trying to suppress the idea of playing someone up as a hero—the cult of personality. I think that he thought it smacked of that somewhat. But when other people began to show a great interest in them, particularly when the people from his university said that they'd be so happy to have them as the archive of the library and praised them so much, why, I think that impressed Tsien and he thought then that that would be the right thing to do. Because I have no doubt that he was sincere in his appreciation when we saw him. It was a change of heart, because he saw an interest there which he might not have seen earlier.

So that really is about the end of it. That was our last visit with him. We hope to see him again. I imagine we'll see Tsiang Ying. I would imagine that we'll see her here.

MRS. MARBLE: She came to this country once during this—you may have mentioned that at another time.

DR. MARBLE: I think I did, yes. Actually, she came while Yucon was here.

MRS. MARBLE: That's right. She did.

COHEN: What does Yucon do in China?

DR. MARBLE: He works for a computer information sciences organization—a company. I don't believe he is awfully high-ranking. But that's what he does.

MRS. MARBLE: And his wife, the last we heard, she was in—is it in Belgium or France?

DR. MARBLE: Belgium.

COHEN: So, Frank, would you say you are probably the only American colleague that has kept in touch with him all these years?

DR. MARBLE: I think so. I think we're the only Americans that have kept in touch with him. He has written to others. Bill Sears, now at Cornell and now eighty-four or so himself. I think that Hans Liepmann may have seen him when he was there. But that relationship had cooled down a great deal. I don't know how warm it ever was, but it had cooled down a great deal by then. Others have tried to see him and have asked to. In fact, I have had people going back there ask me, "How can I get in touch with Tsien?" And I give them the name of Cheng Chemin, who was a student here at Caltech. He got his doctorate here. His son got his doctorate here also and is at the General Motors Research Lab now. So he is a very good contact, because he travels back and forth regularly, and he sees Tsien probably more frequently than most of the others in China do—or at least he has contact with him. So I refer them to him, and he tries, and Tsien says, "No."

COHEN: He's just not interested?

DR. MARBLE: He just is not interested.

COHEN: It's not that he can't? He just doesn't want to?

MRS. MARBLE: Oh, no. He can. Mentally, as Frank said, he's very alert and with it—sharp. His hearing is bad, very bad. But he also has the bad leg, or hip, or whatever.

COHEN: Do you think he's still angry at the loss of face and this sort of thing? Angry that this was done to him?

DR. MARBLE: I don't know. It's very difficult to say what's down underneath. But much time has passed now. He referred again and again to the fact that we were his friends in need. When he had need of it, why, we maintained the friendship. And I think he felt that others didn't. He certainly felt alienated by the Immigration and Naturalization

Service. And I believe he was not quite enchanted by the State Department either. He certainly felt that he was mistreated. Tsien had a great respect for the United States when he was here. I have no doubt in my mind, even if he went back for a trip, that he would have maintained his relationship with the United States. And I believe that he would have continued his outstanding work here. I think that he has always felt a certain responsibility toward China. Again and again, he emphasized that in his hearings. They tried to trap him in his loyalty. “Are you loyal to the Chinese Communists, or the Nationalist Chinese, or what?” And he said, “I’m loyal to the Chinese people.” And they said—I can remember [Albert] Del Guercio saying, “Who are the Chinese people?” And Tsien said, “One billion, a hundred million Chinese. That’s the Chinese people.” He was quite sincere about that. He said that his biggest disappointment—he told us once, and his voice broke a little bit as he said it—he said, “I think that China is now scientifically and industrially doing well. We have food for the people. The people are not starving. But they’re not happy.”

COHEN: This he said to you on one of your subsequent trips there?

DR. MARBLE: Yes. I think that was on the '91 trip. And his voice cracked a little bit when he said it, because I think that was very close to him. He felt that in one way they had been a failure, because the Chinese people were not happy. But I think he really does realize that he’s done an enormous amount for China. He doesn’t like to claim responsibility for it. He feels it’s an effort of a lot of people, some of whom aren’t even mentioned. But I think, in one way or another, he has some satisfaction out of it. And as far as the United States is concerned, he has no qualms about people here. But he certainly does about certain parts of the United States.

COHEN: Well, it’s hard for us even now to think that the climate was such at that time.

DR. MARBLE: Yes. And, you know, it’s rather interesting. Since it’s an anniversary of the Hollywood blacklisting—

COHEN: Right. That’s been in the paper a lot.

DR. MARBLE: That's come up in the paper again and again. You see the kind of bitterness that came up then, when one person in one office betrayed somebody in another office or said, "Oh, I think he's a Communist."

MRS. MARBLE: Horrible times.

DR. MARBLE: It was a horrible time, and he suffered from that. But I don't think he looks back on that and says, "Well, that was just a horrible time, but the governmental institutions aren't as bad now as they were then." I don't think that goes through his mind. I don't think it is an issue. I doubt that he thinks about it very much.

MRS. MARBLE: I doubt it, too—very much.

DR. MARBLE: He has so much else to think about.

COHEN: Well, most of his life has been there now.

DR. MARBLE: Yes. That's right

COHEN: Well, thank you.

[Tape Ends]