

10 seconds.

OK. Why don't you tell us about this photo, please?

OK. That is myself in the annual of the AB Davis High School in Mount Vernon, New York, where I graduated in 1941 and where I had gone to from New York City in 1938 and spent about two and a half years completing my high school curriculum.

I was very active in that school, and I had many friends. It was a much more memorable time than, for example, my university experience. And while I have no friends, really, left from the university period, the people that I met there, the clique that I grew up with, I'm still very close to, and we see each other even after these 50 years.

Last October we celebrated our 50th high school reunion in Tarrytown, New York, which is a few miles away from where this school was originally located. And I'm afraid in those days I had hair, which is something that I'm missing now.

And I see your nickname was Goldie.

Yes, well, I think--

Was that about your hair?

No, that was somewhat contrived. I don't know who told that. I got another name here at the university that was bestowed upon me by a very, very famous chemist who is now dead. I was called NG. I don't know whether that's short for engineer or whether that means No Good.

I was active in a number of different clubs. I was a marshal. I played chess. I was in the math team. I was in the international discussion groups. I don't even remember all the things I was on. They're listed in my annual, and you can perhaps focus on that. And you see I was president of the Math Club, and the Math Team, and School Interests Committee, International Relations, Radio Discussion group, and Science Club.

But all of us played chess after class, and we did that every day. And then in my senior year we got tired of playing chess, and we started to play bridge. And I took up bridge with a vengeance and, in fact, at one time I was relatively very good. But then the ravages of academia got to me, and I couldn't continue it.

Again, it was a happy time, relatively speaking, with the sole thought in the back of my head that my parents were in Europe, that I would almost certainly never see them again. And this weighed on me.

Give me a few seconds here. Tell us about this photo, please.

That is a photograph of my mother. This was this trip again to Munich and Stuttgart, where I received the visa to come to the United States. This would have been in early 1938, probably something like February. This is in the forest not too far from Frankfurt.

OK, five seconds.

Tell us about this, please.

This is a photograph of three of us. I am on the far right at an age approximately six or seven, in Hans Werner Rosenbaum is just to the left of me, and I have my arm around him. And I do not know who the boy was on the far left. This is in the vicinity of my home at the time of Grunerstrasse in Dusseldorf, and the year would be something like 1931, '32.

OK, tell us about this, please.

This is a fellow by the name of Norman Perl. He died a long time ago. He was a friend of mine in high school in Mount Vernon, New York, and this would have been taken about 1940 or '41. He lived right around the corner from me. Cedar Street is where I lived. I don't remember the address where he was located.

And tell us about this, please.

This is a photograph of my father and my mother sitting down with the daughter of the family where they lived in Breda, Holland. I met that daughter sometime in 1953, after the war, and she told me about my parents having been taken away. But I think that they were very, very wonderful to hide them as long as they did before the inevitable apparently occurred, very lovely young lady, but I've lost track of her now. I do not know her name or her address.

Tell us about this one, please.

This is one of my very, very close friends from high school days. He entered from high school into the Naval Academy. His name is Harry Doyle. He lived in Mount Vernon, New York. I've kept in touch with him till now. He lives in Denver, and he was the manager of a part of McGraw-Hill that deals with technical trade publications since he had the entire Western area.

I've seen him two or three times, and I talked to him on the telephone. As I say, it's been well over 50 years, but we're still in touch. He was one of this clique that I mentioned that I belonged to and was very happy with. 1941, I would guess, '42 would be the year that photo.

Tell us about this, please.

This is the same person you saw two pictures ago, Norman Pearl, Mount Vernon, New York, a friend of mine who was not a member of the clique, but I had other friends. And we had an intellectual, good relationship. He lived around the corner from me.

All right. Tell us about this, please.

This photo was taken in 1941, and it was in one of the beaches near New York City. And there were three of my friends from this group. On the left is Jack Irwin, who is a gynecologist, currently lives in North Dakota, and he's located permanently in Connecticut. He retired from his practice and tried to do some research. But there were a number of obstacles, and he's going to have to leave there at the end of the year.

The person to the right of him was Harry Doyle, whom we had seen in just the previous photograph of the one before that, and the third person just peeking into the photograph is Ralph Carreta, who is an attorney, retired. He lived in Mount Vernon and had this practice. I believe he actually is resident in either Scarsdale or Bronxville. I'm not sure.

--seconds.

Tell us about this, please.

That is again my mother and my paternal grandfather, Adolf. This is in Holland. I think it is in Breda. I'm not sure. It could be in Dordrecht. But in any event, it would have been 1939 for them to be out there in that open fashion, before Holland was invaded. And this was after, however, I left them, and it was sent to me.

And tell us about this, please.

Well, this is my closest friend in Germany, Hans Werner Rosenbaum, playing a banjo, and this would have been after he had left Germany. We left one day apart in May of 1938. And I don't know whether he went to England immediately, but from there he eventually came to the United States. As I said in an earlier interview, we sort of lost touch with each

other.

And this, please?

Well, that's our mafia here. This is the group of us that were very close to each other-- they've all been shown individually-- Harry Doyle on the left, the retired manager of circulation for technical magazines in the West for McGraw-Hill. In the center standing is myself. To the right is Jack Irwin, MD, currently in Dakota and soon to return to Connecticut.

Incidentally, his daughter was married in my house some 16 years ago, and the whole family came out for that event. Unfortunately, she's going to have to get married again this coming January, but that seems to be the pattern-- the normal pattern in this country anyway.

Ralph Carreta, the lawyer down below on the left, and Jerry Vreens on the right down below. Jerry got his PhD in chemical engineering from Purdue University. He worked in New Jersey for one of the major chemical companies. I can't recall right now which one. He retired several years ago. He's an ornithologist. He's very much into the determination of his ancestry, and he's tried to get me interested in this. And I've promised to try to pursue it, but I've been too busy to make any inroads on it.

And yet, for me, it's even more important than for him. The genealogy that he's compiled that dates back to 300 or 400 years, and I can't possibly hope to do that. But it would be nice if I could at least complete the set for my grandparents and perhaps for some of my great-grandparents. So that was taken in Mount Vernon, New York, 1941, just before we all separated to go to college.

Did you find yourself associating with Jewish friends more than anybody else or just everybody?

Well, I certainly never made any selection, but in that group I'm the only Jew. So I don't recall that I ever had a very, very close friend who was Jewish. In fact, my closest friends here in the Bay Area with whom I associated for over 30 years before he moved to Reno was an Irishman and not Jewish. And so it's never been a habit with me except, apparently, for my first two wives.

Did you discuss what was going on in Germany with them?

Oh, yes, but not to the degree of intensity that I would today. It was, A, too close, B, we were too young, and C, we were actually too busy. But as you get older and get more perspective, of course, you start thinking about these things. I'm still in touch with all of these except for Ralph, and I know where he is. And I'd hoped to see him at the reunion, but he didn't show up.

I stayed with Jerry Vreens down on the lower right a year ago when I attended the reunion. I was also supposed to stay with Jack Irwin, the upper right. But he had an emergency operation the day before the reunion, and so he couldn't attend. And I didn't see him. But he just called me a couple of weeks ago, and we chatted. We chat every couple of months on the phone.

This-- excuse me. This group, in addition to being interested in chess-- all of us play chess except Ralph, but we all played bridge together, too. And then we just had a nice social relationship. Ralph fitted in even though he was not a member of the competitive sports. I think he was a member of the Math Team, and so that fitted in. Of course, Jerry and Jack were also members of the Math Team. Harry was not.

And tell us about this, please.

Well, this is my grandfather, Adolf, and my mother. And so this was taken in Germany and probably somewhere around 1930. I do not know where. I do not know who took it. But I gauge that from the appearance of both of them. And I don't know whether or not that is snow in front of them or not, but I have no details as to the location. But it's again, an illustration of the really very well-tailored appearance of my mother. My grandfather was no slouch either. He was very

properly dressed.

And this, please.

This is another photograph of my group with the exception of Ralph Carreta, who is not there, Harry Doyle on the left, then myself, Jerry Vreens, and Jack Irwin. And this is actually taken in front of the apartment house where Harry Doyle lived. And I didn't live very far from there, and neither did Jack. Jerry lived in a comparable apartment house just right across the street from there, Mount Vernon, New York, 1941.

And tell us about this, please.

OK. This was taken in Dordrecht, Holland, and my guess would be that it would be about 1933 or '34. The man in the picture sitting down is my uncle, the husband of my aunt, Greta, who is my father's sister. On his lap is his daughter.

Behind him is his sister-in-law, the wife of Louis Vandenberg. My aunt, Greta, is behind the woman in front, and she's holding me on the far right on my shoulder. I do not know the lady in front. She's one of the relatives of Joseph Vandenberg. It may very well be the daughter of the lady in back, Jiet Vandenberg, so she would be the niece of Joseph Vandenberg, Holland, 1938-- '33 or '4.

And that is my mother in the little town of Tschierschen in Switzerland, where we had all gone to go skiing, and she was just posing on the roof of one of the cottages. And this would have been 1935 or '36.

OK, tell us about this, please.

Well, this is my younger daughter, Remy, graduating from middle school of the [? Head-Royce ?] school system, and this would have been a year-- a year and three or four months ago. She's now a sophomore in high school. And she looks very grown-up when I look at her. I'm very, very fond of her. I'm very fond of my entire family.

I should add something here in the discussion of this entire collection of pictures. Because of the fact that I lost some 16,000 photographs in the fire, what I have is only present material that I've taken since the fire or the few photographs that were returned to me from people to whom I had given duplicates that have sent them back so they could stay in the collection. Therefore the pictures are completely random in terms of time, and it's not complete in any way, shape, or form.

However, the pictures that you're showing now are the pictures that I had in my office because they're in front of me on my desk in my office, and so that clearly was saved. Otherwise, this picture would not have been available.

And tell us about this, please.

Yes, this photograph is myself and the present chancellor of the university, Chang-Lin Tien, who was a member of my department of mechanical engineering there. In fact, at one stage of the game I recall voting on him for tenure in the department.

And we have been very good friends. I wouldn't say we are close friends, but we are good friends. And this was taken at the faculty club on the occasion of a wine tasting in 198-- in '91. He's always been very gracious about allowing someone to photograph us together. I have several photographs in different circumstances with him.

He's an absolutely fantastic person, gets a gold star in every category that you can imagine. It's just a pity that he's forced to govern the university at Berkeley under the present financial circumstances as well as under the other very serious problems that he's faced. His first year tenure was just filled with murder, and riots, and everything else. I feel very, very sorry for his family also.

A month or so ago some crazy woman broke into the Chancellor's house wielding a knife, and she was shot to death by a policeman when she tried to attack him. And I'm sure this has made an indelible impression on him. Particularly

Oriental are extremely concerned with death, and any death that occurs in their home is reflecting on them personally.

But Chang is very Westernized. He's much more Westerner than Oriental. And the other thing that Chang and I have in common is that my third graduate student, who had to start his degree with me, is possibly one of my very favorite graduate students. He's a professor at the University of Texas. We're very close socially. In fact, I've just come back from visiting him.

And he and the Chancellor were classmates in Taiwan. And not only were they classmates, but they played on the same basketball team together. They were also in the Navy together, and their wives were also close friends over there. They were also in the same-- different class but together. And so we have a lot of things bonding us to each other.

Tell us about this, please.

Yes, this was a very, very happy occasion in my life. Just as the departure from Europe was ambivalent and the fire was horrible, this was the occasion of the initiation-- my initiation into the National Academy of Engineering. And for that occasion, because it was the 25th anniversary of the academy, we were required to appear in a tuxedo.

And we were coming down-- I think it's one of the big hotels in Washington and we were coming and going to a dance there preceded by a dinner for the Academy members, and it's one of the better pictures of the two of us that I've seen. The atmosphere was also equally happy, 1989.

Tell us about this one, please.

Well, this is a picture in the kitchen of our house that burned down, and you see my wife, Penelope, on the left, my granddaughter, Michelle, in the middle and my daughter, Remy, the younger daughter, on the right. And this would have been about 1988, perhaps '87, just judging by the age of Michelle, who is now-- no, it couldn't be '87. It would have had to be '88, at the time when the house was still standing.

And your map collection.

No, it's--

Tell us about this, please?

Yes. This was in the living room of our former house before it burned down. I've always been interested in symphonies, and occasionally I used to take my slide rule and start conducting with it. Well, they thought better of that and gave me a conducting stick, and so I was conducting the record player, which was on the right.

I might mention that visible in this picture, when it's a little bit larger, is the rather extensive set of masks that I had on the wall. The wall hanging itself was from Vienna, which I bought in 1960, a brocade reproduction of a world map of the two globe hemispheres.

But it was a comfortable place. It was not very fancy. But there's my leather chair, which I thoroughly enjoyed. Because of my bad back, I need good places to sit, and it gives me a certain amount of nostalgia to look at that picture and all the pictures of my former home.

Tell us about this, please.

This is a photograph of Herta Oppenheim of New Orleans. She was the lady who was extremely close to my mother as a personal friend. My father went to her wedding to his cousin, and that's where he and my mother met. And we have taken her-- and I have a few pictures of that-- to Hawaii. We found her wonderful and an inspiration to all of us.

To the left of her is her grandson, Dan, Daniel, who was a lawyer but is currently, I believe, engaged in collections rather than the practice of law. This would have been in New Orleans. My best guess would be that this was about 1985.

And this, please?

This is my younger daughter, Remy, and in front of her my grandchild, Michelle, who must have been approximately a year and a half at that time. So this would have been about 1988 or '89. And I don't recall where the locale is, but it's somewhere in Berkeley, California.

Tell us about this, please.

This photograph is a very monumental occasion for me. This was the time when I turned the first heap of dirt with a spade in the rebuilding of our house. I'm on the left with a glass of champagne, and to my right is my contractor, John Silver, who's doing a fantastic job on getting us back from nothing into a livable home.

The hills behind you is the hill from which the fire swept down on us, and all the trees on that are completely burned. Even though they seem to have some leaves on them, that's a very superficial thing. They're all dead, basically. And it marked a new beginning for us.

The fire was, in a way, the counterpart of the Holocaust. There was nothing pleasant or constructive about either one of them, but they affected me in a different way. The fire was not a vicious act, whereas the Holocaust was, so consequently, there is some joy in rebuilding from an accident, an act of God or whatever you might want to call it, also even negligence on the part of the Oakland Fire Department. You can call it that, too.

But the Holocaust is not an act of God, and so the reactions to the reconstruction from both events is different.

This picture was taken in the rental home that we had from November 1991 until April 1992. It's taken to the living room there at 1 Lodge Court, Oakland. And to the far left is my son, Stephen. Next to him, on the right, is my daughter, Remy, and I am bemusedly watching whatever she is doing.

On the right is my daughter, Andrea, who is now 28 holding Michelle, who is Stephen's daughter. And this picture must have been taken by my wife, no special significance except that it has my immediate family, blood relations that I have.

That is my granddaughter, Michelle. I believe this was taken in Anderson, California, which is quite a ways north of here, just south of Redding. It was probably taken when she was two years old, and so that would make it 1989. It seems to be about it. She's been moved back and forth quite a bit. She's a very, very determined little girl. In spite of all the malaise that has been around her, I think she'll do all right.

That is my daughter, Michelle, again, but this would have been in the area near Guerneville, and it would have been the winter of 1989, I guess. There's some snow there. And I just have a few photographs to show that she is my youngest acquisition as far as family is concerned.

And this photograph would be my granddaughter, Michelle, but up in the Sierras, where somebody had built this, well, I guess, Mickey Mouse, and she is admiring the snow but not Mickey Mouse. This would have been 1989 or 1990.

Well, that is an interesting photograph. That's Boreal Ridge, which is on the top of the summit of the Sierra Nevada mountains in California, and the two people in that is myself on the right on skis and my son, Stephen, on the left. And this would have been taken at least 1989 or 1988, even. I have since given up skiing. But that was a happy sport for me, and I enjoyed doing it, in spite of the fact that I broke all kinds of bones as a young child trying to execute it.

And this is simply another picture of the same type, my son on my left and myself on the right on skis at Boreal Ridge. I had taken, I guess, the easy road down, and he's more adventurous. And he's also much younger, so he was able to take some of the more difficult roads. I guess I'm just a bunny. You go up in skills, and then as you get older you go down. And so you have to know your limitations.

Tell us about this, please.

Well, this is a photograph of me holding my granddaughter, Michelle, in my home before it burned at 450 Gravatt in Berkeley, California. I would say this is either 1987 or very early 1988. I'm sitting in my favorite leather chair in my living room. We both seem to be quite happy with each other.

That is another-- sorry.

Go ahead.

That is another photograph of my granddaughter, Michelle, in a sort of a crib, I guess, or some sort of restraining system. She looks a little bit puzzled as to what's going on in this world, but she's a happy child, basically, happy in that moment.

This is a different picture from all the rest because it shows something of my professional activities. In this photograph a helmet on a horizontal plunger is about to impinge on a dummy, on the chest of a dummy, and this was to try to simulate an impact in a football game. And this would also, of course-- could be the case for some other type of sports.

But the idea is to evaluate the quality of the helmet, and the way that is done is that there are devices that measure the force, and the stresses, and so on in the head that is behind the helmet and in the neck that supports the head. And this sort of thing is done to try to improve the design of the helmet.

In this particular case, it was actually a matter of testing a helmet because it's been named in the lawsuit as not being very good, and we were trying to ascertain whether the charge was correct or not. And this was actually done-- this photograph was taken in the laboratory of a friend of mine in Detroit, Michigan. The name of the friend is Professor Al King, and he'll be out here in about six or seven days. So we'll have a reunion.

I have done a great deal of work with helmets, helmet testing, helmet analysis with head injury and neck injury, and this is why I thought it'd be interesting to show what we do or one of the things we do in this kind of operation. It makes-- it makes terrific copy when you talk to high school students about it.

Was the helmet good or bad? [INAUDIBLE]

I'd rather not say at this point. It's still a question of legality. And there is no such thing, really, as good or bad. Everything has to be referenced to a mean, and the standards are quite artificial. The claim is that this is much worse than the average. Well, then that is not true.

Well, this was the occasion of the graduation of my older daughter, Andrea, from the College of Engineering, Department of Engineering Science in 1986. And I put the diploma into her hand. I displaced the dean for that one occasion.

And I have my academic gown on with my tassel and my hood. Andrea, my daughter, is extremely happy, and on her right is her mother who, I'm afraid, is not my favorite person. But then we've been over that before. It's one time that I would tolerate being together with her because the occasion was certainly a very joyous one, at the Greek Theater, University of California in Berkeley, 1986.

OK. This was taken in the dining room of our former home before it burned at 450 Gravatt in Berkeley, and the gentleman on the left-- his name is Ivan [PERSONAL NAME] and he did a sort of a postdoctoral fellowship with me. Actually, he got a doctor's degree as a result of working with me. He's now a very high official of the Moscow Civil Engineering Institute in Russia.

And he came back last year on a visit for the first time since he was here in 1971. And he was here again this year because he had an extremely bad heart condition, and he thought he needed heart surgery. And so there is this heart-to-heart program which the Oakland Children's Hospital has with Russia, specifically with Leningrad. But he is the second adult that was brought over-- usually it's children-- to have this operation.

Well, when he got here-- and he was here in July and August of this year-- the doctor examined and found that he could be treated with drugs and didn't need surgery. So he was extremely happy, and he went back. So we had a reunion. I am in the middle, and my wife, Penelope, is on the right. And this again shows the kitchen and the dining room of our former home.

And this photograph shows the reconstruction of our house. The house isn't particularly visible, but what you can see is the I-beam which is part of the retaining wall that's shown on the left and goes all around the house. In the photograph, you will see my wife on the left, Penelope. Next to her, on the right, is a contractor, John Silver. In front, in the middle, is one of the architects, [? Greg ?] Albertson, and on the right is the chief architect, Max Jacobson, enjoying the view and the progress on the house. This was taken in September of 1992.

This photograph was taken upon the occasion of my attendance at the National Academy of Engineering annual meeting in the end of September 1992 and with two of my colleagues, Norman Abramson, formerly from the Southwest Research Institute in San Antonio, Texas. The other one is Professor Crandall, the Massachusetts Institute of Technology. Steve and I, Steve Crandall and I, have been to many meetings where we've exchanged photographs, and I'll be doing that here as well.

This is also at the 1992 National Academy of Engineering Meeting at a reception during the afternoon. I'm on the right. My wife, Penelope, is on the left, and Professor Andreas Acrivos, now of New York, is on the far left. Andy used to be at the University of California in Berkeley, and we used to play cards together. And that would have been in the middle-to-late '50s, so we've known each other for quite a while, too. He's a very famous chemical engineer and works in fluids. I might say that this is the first meeting of the academy that I've gone to since I was initiated three years ago, in 1989.

Go ahead.

This photograph is in Amalfi, Italy. And I'm on the right, and my very close friend, [INAUDIBLE] [? Obermeyer, ?] who's a very, very fabulous neurosurgeon, is on the left. This was sent to me as one of the pictures that somebody had. And I might say that the beach leaves a great deal to be desired at Amalfi.

The meeting was sponsored by the Italian Institute of Traffic and Transportation, and it dealt with head injury. The meeting was actually held in a 12th-century Benedictine-type abbey. They weren't Benedictines but a similar sect. And they still had a portion of the abbey in that hotel, and it's reserved for the Institute whenever they needed. Otherwise, it does serve the general public.

And to get there, you have to take an elevator which comes from the street, separate from anything else. It's like a skyscraper out of the street. You take it up eight floors, and then you walk horizontally along ramp into the hotel. It's the only way to get in. I guess I had to be afraid in those days. I'm built that way.

This is from the dining room of that abbey. It is the Capuchini monks that had there, Capuchini, I think it's the correct name. And as you can see, you have a fabulous view of the cosine of the Amalfi Coast, and you're eight stories above ground there. The food was reasonable. The service was so-so. And we had a very good meeting. I enjoyed seeing some of my friends that I don't very often see normally.

And that is yours truly just about to enter the elevator which is on the right. I'd had quite a harrowing trip to get there. I had taken a plane from San Francisco to New York, but the plane was delayed in San Francisco because of weather in New York. I got to New York.

The plane to Rome which I had to take had also been held up, and I got that plane all right. But when I got to Rome, I found that the plane to Naples had departed about three and a half hours ago and the next free seat was 10 days on a Tuesday afternoon.

And so of course I had to do something, so I went into town, and I met next to me on the seat on a bus was a professor who directed me to the railroad station. And he made very sure that I knew exactly what to say and be sure that I would

get to the right place, which was to go to Salerno.

Well, I said four or five times "rapido Salerno" and always si, si, si, si. And I bought the ticket and got on the train. The next thing I found myself was halfway to Bari before the train stopped. It was a rapido all right. And then I had to go and change and go back to Naples and then back to Salerno.

And when I got to Salerno I got my bags out, and I had to walk six or eight blocks to the nearest bus station. When I got to the bus station, I had to wait an hour, and I finally got a bus to Amalfi. And I was dumped unceremoniously in the marketplace in Amalfi, and I could see the hotel only about two blocks away. But it also was up a substantial amount, and I was too old to carry my bags.

And so I looked around. There was a cab driver. And I said, could you take me up there? Yes. And how much is it? Well, a totally unreasonable amount. 5,000 liras, \$12 for one block didn't seem reasonable to me.

Then the policeman came over and heard this, and he said, if you wait five minutes, there'll be a bus that'll drop you there. And that taxi driver was absolutely furious with the policeman, but I waited for the taxi driver. And I was new nine hours late getting there, but I got there.

The people who did go to Naples by air decided they wanted to take a taxi from the Naples airport to Amalfi and ended up paying about \$150 in taxi fares. So perhaps I did the more proper thing in terms of financial restraint.

This was in the kitchen of our home before it burned. It's my older daughter, Andrea, on the left, my younger daughter, Remy, in the middle, and my wife, Penelope, on the right. And we are obviously drinking some champagne on some special occasion. It was somebody's birthday, or maybe somebody had graduated or accomplished something special.

Whenever we have a very special occasion, we celebrate it with both caviar and champagne. The caviar is beluga, and it's Petrossian. So if we keep-- have too many things to celebrate, I'll end up in the poorhouse.

This is a picture of my extended family. It's in the dining room of our former home. On the far left, closest to the camera, it's myself. Next to me, on my left, is my daughter, Remy. Next to her is my wife's sister, Victoria or Vicki. My wife is at the head of the table.

My mother-in-law is hidden by my father-in-law, and my father-in-law is Alexander, Sidney Alexander. My mother-in-law's name is Ellis. They're only a year or three older than I am. My daughter, Andrea, on the right, older daughter. This is obviously a family reunion, and we didn't have champagne. We just had red wine. My best guess was that that was 1990.

We are switching quite a bit in time. This is the year 1973, and this is Freiburg, Germany. And we were celebrating with [INAUDIBLE], somebody receiving his doctor's degree, having passed the examination. I spent a portion of 1973 in that town before moving. Well, no, I spent it there for the summer. I worked in the institute. I also was there in 1975 or '76, but I believe this was 1973. In any event, it was one of my friends receiving his doctorate degree, and I think his name was [? Schultz. ?]

This is a reception following graduation that the Department of Mechanical Engineering holds outside the building at Etcheverry Hall in Berkeley, and these are two of my PhD students that had just gone through the ceremony, even though, perhaps, they hadn't handed in their theses. On the left is [? Wang ?] [? Su ?] [? Yuan, ?] and on the right is [? Guaki, ?] now calls himself George, Xu.

Both of them are working for General Motors, and they're both citizens of the People's Republic of China, even though they certainly don't want to go back. The one on the left has a family, and the one on the right got married while he was a student here. And he married a girl and then promptly had an automobile accident by his falling asleep at the wheel as he was coming across Donner Summit on Interstate 80. He almost got himself killed.

Anyway, they both did very fine jobs. I'm very proud of their work, and they have every right to be proud of it. And I

was very-- they were very fortunate to get a job with General Motors because immediately after they got their job, General Motors would not accept any more employees. And now, as you well know, they're laying off enormous numbers. I hope they won't be one of them.

This is a picture taken, I believe, in Lodge Court in Oakland, California in either late 1991 or early 1992. No, it would have to be late 1991. That's my son, Stephen, and my daughter, Andrea-- these are both from a previous marriage-- and myself in the living room of that house, obviously enjoying and sharing some joke.

Go ahead.

This is a photograph from the balcony of our former House overlooking the Hill from which the fire came that destroyed it. It's my daughter, Remy, and myself, and I would say that it's probably something like six years ago, so it would make it 1986 or thereabouts. My daughter is now my height, and she was substantially shorter at that time. That's how I gauge the age.

I should say something about one of the previous pictures, if I may. Where you had the two students that appeared in the doctoral gown and I appeared in my doctoral gown, it is my habit and privilege to put the hood over them when they graduate. This is the right and the privilege of the supervisor of the dissertation.

In addition to that, every doctor student that I've ever had and his wife, mistress, or significant other, but only one, gets taken out for a very nice dinner after they receive their PhD. They're, of course, invited in the interim to the house, but that's random. The dinner afterwards is at one of the better restaurants, and that's been my standard practice for doctoral students.

That is my wife, Penelope, and I at the fundraiser of the Bentley School. We don't have a daughter going there, but we have friends who participate in their activities. And this would have been taken some time this year, 1992-- I don't remember the exact date-- on the grounds of Dunsmuir House in Oakland, California. It's a really lovely mansion where they hold these events.

And this is the transformation back to our old home at 450 Gravatt Drive, the dining room showing my son, Stephen, Michelle, my granddaughter, and his then-girlfriend, Elizabeth [? Cadden, ?] from New York. And it was obviously at Christmas time or close to it, and so my guess was that this was Christmas 1988.

This is the genuine celebration of the groundbreaking ceremonies at our home to be reconstructed with my immediate family that lives with me, my wife, Penny, on the right, my daughter, Remy, on the left, and the contractor, Frank Silver, in the middle, drinking champagne.

This picture is my wife, Penelope, the lady in the center, with her siblings. She has two brothers, Philip Alexander on the far left, James Alexander to his right. And she has a sister, Victoria, who just got married at the end of June, and this would have been taken in a home-- not a home, a ranch which was run by the McDonald's Corporation for handicapped children.

And my brother-in-law, Philip, on the far left was the manager. He has a degree in animal husbandry, so he takes care of horses, and cows, and things like that. He was managing this farm, which is located-- it's very close to Santa Ynez, where they have a lot of this sort of horse ranching going on.

And this is, similarly, a photograph of that family. My wife is on the far left. My daughter, Remy, is just in front. I'm behind. My sister-in-law, Victoria, Vicki, is to my right. Next to her is her mother, Ellis, and next to her is her father, Sidney. And behind is her oldest brother, Phil. And this must have been taken by the younger brother, James. It was taken in this McDonald's ranch house circa 1987, perhaps '88. I don't remember.

Well, this photograph was in my own home at Christmas time. My guess would be it'd be about 1987 or '88 because-- no, it couldn't be. It would've had to be 1990. My mother-in-law is in the far left standing. I'm next to her. Next to me is my father-in-law, Sydney, next to him, my wife, Penelope.

Below is my daughter, Remy, on the far left, my son, Stephen, my other daughter, Andrea, and my granddaughter, Michelle. Michelle looks to be about four years old, so this might have been 1990, no later than that.

OK, go ahead.

This is Christmas 1983. This would have been in our home on 450 Gravatt Drive, Berkeley, my wife, Penelope, my daughter, Remy, and myself in the living room of our home with a Christmas tree behind. Christian religion-- we also celebrate Hanukkah.

This photograph was taken in the home of my parents-in-law in Fallbrook, California. I can see the swimming pool behind. My mother-in-law, Ellis, is on the left. My daughter, Remy, is in the center. My wife, Penelope, is on the right. This says, August 1982, so this is about 10 years ago.

We periodically go down there. Sometimes I can go along. Sometimes business keeps me, but my wife manages to get down there at least twice a year. This photograph was taken in Kailua, the Island of Hawaii, and we are in a boat that has a glass bottom so you can see the bottom of the ocean. And this would have been probably 1981, '80 or '81.

On the left is a man I don't know, but my aunt, Herta Oppenheim, whom we took on this trip to Hawaii, is to the left of my wife, Penelope. And Remy, my daughter, is on the right, looking not too terribly happy. But we enjoyed taking Herta on this trip because, if we hadn't taken her, she would never have seen Hawaii. And because of the esteem in which we held her, this was a pleasure for us.

Well, they see [INAUDIBLE]

No. No, they probably were squinting into a very strong sun.

So that wasn't whale-watching? That was--

No. We were looking for undersea life.

And this is my daughter, Remy. This is not at our home. I do not know where it is. It looks like this might be about 1981 also, from '80 to '82, and I can't make out the locale unless there's some kind of mark on it.

That is a photograph of my second cousins and their family. On the right is my second cousin, [? Gurd ?] Oppenheim. Next to him is his wife, Trudy Oppenheim. Next to him standing is their son, Daniel. In front of them is their daughter, Susan. Now, they live in New Orleans, and it will look to me like this was probably approximately 10 years ago, 1982 or perhaps a little earlier than that.

And this is a bit later. In the center again is my wonderful-- what I call aunt, Herta Oppenheim, and her two sons. On the left is [? Gurd, ?] and on the right is Henry. And Henry and I, when we were children, were very close. We aren't so close anymore now. But it is [? Gurd ?] and I who are now much closer than with Henry. But those are the things that happen in a family relationship.

That picture is myself attending to my first-born, Steve, and this was a house that we had on-- the name will come to me in a moment. It's in Berkeley, California. This was approximately 28 years ago. That would make it 1964. Summit Road is the address, and I lived there while I was married to my second wife. And that marriage lasted about three and a half years.

That is a photograph, fairly recently, two years ago-- no, actually last year, 1991, in early December-- of the Oppenheim family. And I and my wife, Penny, went down specifically to visit with them in addition to I going to a technical meeting in Atlanta.

This was in a small town in Central Louisiana. I will identify the people in there. To the far left, the blonde, is Patty

Oppenheim, who is wife of Danny. Danny is between-- I'm between Danny and Patty, just sticking my nose out. [? Gurd, ?] was shaking his finger at something, is at the edge of the table. His wife, Trudy, is on the right. My wife, Penelope, is next to her, and Susan is at the end of the table on the right.

That's going to go in there. OK, go ahead.

This picture was taken in the rental home in Lodge Court at Christmas, 1991. My daughter, Andrea, and her boyfriend, [PERSONAL NAME] Mexico City. I am behind him, and my wife, Penny, is to the left.

This was not Christmastime, but it was still in the same location, 1 Lodge Court. It's the one and only time we heated up the hot tub. My son is to the left, Stephen. I'm in the water. Andrea, my daughter, is in back. Her boyfriend, Artur, is on the right, and Michelle, my granddaughter, has just assayed into the water. It was in the wintertime, obviously.

This picture was taken again in 1964, and I am on the left. My second wife, [? Eden, ?] is in the middle holding Stephen, our son, in the house on Summit Road in Berkeley, California.

And this is a photograph at a party. The people I can identify are my daughter, Remy, on the left, myself, and my aunt, Herta Oppenheim, on the right. It must have been a good party, however.

And this picture was taken in the apartment of my second cousin Henry Oppenheim, who, at the time, owned a boat which is visible in the background. So this is sort of a-- I don't know what they call them, a condominium on the water.

Marina.

Well, that sort of thing. And on the far left I don't know who that is, but next to her is my aunt, Herta Oppenheim. Next to her is Dee Oppenheim, who is the wife of Henry. Next to them is Daniel Oppenheim, the grandson of Herta. Next to him is Henry Oppenheim, her son, and the other son, [? Gurd, ?] And he's holding Susan up on the chair or on the counter there. My guess is, just looking at this, that this was quite a long time ago, maybe 15 years or even 20 years ago, New Orleans, Louisiana.

You are looking at the city of Honolulu with my aunt, Herta, my daughter, Remy, on my shoulders, and I'm Werner Goldsmith. This would be 1981. We spent two weeks in the islands.

Is that the Aloha Tower?

I think that may have been actually the monument.

Is that the Punchbowl?

Punchbowl, I think.

And this is a photograph of Herta and her husband-- her husband died about 1973, so I would say this is about 1971 or 1970-- in the home in New Orleans on Jefferson Street with a grand piano, which is still there, very much in evidence. So this would have been just approximately 20 years ago.

And this is a rather interesting photograph. This would get us back to approximately 1971, New Orleans, in the home of the Oppenheims. It's myself and my second cousin, Henry. What we were doing is we were in the same old galvanized tub, if you can focus on that a little bit below, that we had bathed in jointly when we were in the Rodden together in the '30s in Germany. Somehow or other they had taken that with them, and we were re-enacting a communal bath.

Was that your first beard?

Yep, I wore a beard from 1971 to '77, and I wore it as a result of going to Israel for the second time. And I thought I could get acclimatized. But then that same Mrs. Oppenheim, when she saw it in 1977, she said, why do you want to

wear the beard? It makes you look 10 years older. So I went back to a smooth-shaven chin.

And some people didn't recognize me when they hadn't seen me since that period. They were looking for somebody with a beard. So that's--

You're very distinguished.

It's a long period of time.

This photograph is upon a dinner which took place in 1988 at the University of California in Berkeley at the Clark Kerr campus, where we had a joint meeting of two national societies, the applied mechanics division of the American Society of Mechanical Engineers and the Society of Engineering Sciences. I was the Local Arrangements Chairman, and the general chairman was my very, very close friend, Mike Carroll, who's on my left. He's now left and become dean at Rice. When he left, I felt like I lost both arms.

And the occasion was a very joyous one for me, too. I had retired the previous year, and the societies had seen fit to dedicate two sessions of the meeting in my honor. And so I had reason to be pleased.

And this?

And this is my returning the favor for Mike by presenting him with the certificate of the fellowship in the American Society of Mechanical Engineers that same year, 1988. And this was probably done in front of my home, in front of the refrigerator in my home in 450 Gravatt, the old home.

This was a meeting which I had arranged and for which I got funding from the National Science Foundation. It was held in Park City, Utah, and these were the people that I had invited. And the group was concerned with the question on when does microfracture in rock become macro or catastrophic fracture. And how can we tell, and how do we analyze this situation?

And so what you had there were a bunch of people who worked in the field of continuum mechanics, in rock mechanics, in metallurgy, in ceramics, and they were from all over the country and even some from abroad. We had actually invited 35, for whom we paid for the trip and for the accommodations. There were maybe another half-dozen who came on their own expense because they wanted to participate.

I believe I'm in that photograph somewhere, but it may be difficult, if not impossible, to find it. It's one of the other activities that I engaged in is to arrange for high-level professional meetings.

This is a photograph of my friend, very close friend, Mike Carroll, Michael Carroll, with myself, now a temporary quarters at 1 Lodge Court in Oakland, California in December 1991, about six weeks after we were burned out from our own home.

Michael is the Dean of Engineering at Rice University, and I have tried very hard to keep in touch with him by calling him at least once every four or six weeks. I've just visited him in person four weeks ago and given a seminar there, and he's very, very dear to me. So we were happy to have him in our home.

This photograph is fairly significant in one respect. This man is Alfred Davidson, who is one of the five sons of Maurice P. Davidson, who was the man who brought me to the United States. I have tried to keep in touch with all the Davidson brothers, two of whom are dead, and I've tried to show my gratitude to them for saving my life.

Alfred was one of the actual initiators of the idea of the Channel Project, and he and his brother, Frank, who was a lecturer at MIT for many years, promoted this idea for time and time. And then another company took over, and actually there was a substantial financial settlement because the other company took their ideas and exploited them.

So Alfred still lives in New York. He's 81 or 82. I'm sorry, in Paris. And this is taken and one of the most famous bars

on the Champs-Élysées cafes probably in 1988.

And this?

And this photograph was taken in front of our burned-down home before it burned, showing the garage. And the date on that was just about August of 1991. It was just about a month or two before the fire. The lady there is the wife of a professor from Poitiers in France.

And what had happened was that I had visited them about the first part of October. Just before the fire, I had gone through Poitiers and spent two nights there. And they had visited me a month and a half before that. So this was significant only in terms of showing what the house that we had looked like and also the fact that it was a rather dreadful circumstance that brought me to Europe and then back to try to save the house, which I did and succeeded.

And this?

And that's my wife and I in our living room, Penelope and Werner, in the old home which shows some of the-- I can see on the ledge of that balustrade-- we had some tikis from Hawaii. You can see the base of those. And also there was a tapestry that's visible in another set of photographs, and one mask hangs down sufficiently to show the bottom of it.

And the door to the outside is open, and there's another ledge out there. It was quite a steep drop of about 40 feet down to the ground.

And this is me sitting in my favorite chair in the old home, the couple of masks behind me on the post and on the wall, that tapestry showing the two hemispheres, a reproduction of an earlier map, which was very important to me because I'm an old map collector, as I think I've mentioned. I think that's one of the better photographs of me. I usually have a very crooked smile.

This is a photograph from our balcony overlooking downtown Oakland and the Bay, and the reason for showing this, I guess, is to show the kind of view we had and hopefully we'll have again. Mrs. Lagarde on the left is the wife of the Professor Lagarde from Poitiers, and I was showing them around the area. I've always been very sociable and taking people on trips around to show them what the area looked like. So this is the case here.

And tell us about this, please.

Yes. This was the occasion of the Third International Fulbright Alumni Association Convention, which I was the chairman of, and that's why I'm showing this. And that's my wife. And this was 1981, and it was at the Faculty Club of the University of California in Berkeley for the reception. This is my wife and I with Senator Fulbright, who I managed to arrange to get him a Berkeley citation at the time.

Berkeley no longer gives honorary degrees, but he got an honorary degree from the University in 1961, when they still gave them. And the time he got in '61 was when his daughter got a master's degree in business administration from the university or something. I don't know whether business administration-- anyway, this was a nice meeting.

I have done my duty for the association, I feel, with arranging this, and I did this at a time when I was in extreme physical distress, except for that instant you see me there. I was wearing a collar around my neck because I had just-- about to undergo a neck operation, and I'd gone to Toronto just the week before to go to an international meeting. So I was in some pain, but I guess I don't show it, 1981, Berkeley.

This was at the southern edge of the Island of Taiwan. I was over there because I was the chief lecturer on a seminar on collisions of impact. They had invited two other people completely independently of me. It turned out that both other people were also PhD students of mine. And so it was a Goldsmith type of seminar. We're looking out at the China Sea in some fairly tropical area in Southern Taiwan, 1990.

And that?

And the reason I wanted to show that picture is that you get a much better idea of the collection of masks that I had. I had them on several walls, and this shows a collection of some of them, as well as that tapestry. And I was sitting in my favorite chair, being curious about something, I'm sure. And I don't know what I was doing, but I thought it would be interesting to see the environment in which I was located at the time in my house, 450 Gravatt, approximately in 1988.

This is what our property looked like the first time we were able to get back with a camera and take a photograph. This would have been in October 25 or so, 1991. If you can see, the appearance of the place is actually worse than what Hiroshima looked like the day after the bombing.

After they had a cleanup there, it looked much more manicured and didn't give the impression of the stark disaster that had occurred. Here, the burned-out trees, the rubble and so on give a pretty good idea of how we all felt and the experiences that we had subjected to.

And these are some more photographs. The area just in front seems to have been cleared, whereas the area in back has not. The contrast there is also very stark. It's difficult to gauge when this was. Again, it would have been the end of October, possibly the beginning of November 1991, the fire in the Berkeley Hills that consumed 3,800 dwellings.

More of the same?

Yes, but this has been cleaned up, as you can see. There's a total difference between the cleaned-up version and the initial rubble.

And are those trees that have grown in the--

No, no.

No? They were untouched by the fire?

No, they're dead. Oh, you mean-- whatever you see down there, the trees-- they sprouted back, yes. And much of that foliage, however, is burnt. It doesn't appear that way from here, but it is burnt.

That's an interesting photograph. That's my wife in front of the so-called Parkwood Apartments. They were a complex of 830 units built out of wood. The garages were made out of fire brick. And we only could get up there with a policeman driving or policewoman driving us.

And you can see a vehicle here on the right that seems to be intact, but there are other vehicles that would totally-- it was random whether they were intact or not. Anyway, the couple that was with us had just driven their brand-new Honda Accord across the country. They wanted to know what was left of it.

So they talked to a fireman who was inside. He wasn't allowed to go inside. Asked them to describe the vehicle and then asked if he had the key. Yes. He turned it over and drove the thing out. It wasn't touched.

And this is what happened to me in my home. The night before, a young girl, about 20, rang the bell at 10:00 in the evening. Her car had stalled. Could she call her boyfriend? Well, yes, of course. Boyfriend came. She locked the car, drove off.

The car was a VW convertible with a vinyl roof. The next morning, when we left about 12:00, the car was there. When we came back the following Wednesday, the car was there. The only problem was a slight bubbling of the windshield, but the tires hadn't burned, and the roof was intact. And all the buildings around were completely burned to the ground.

And what is that?

This shows the destruction that was wreaked by the fire of our property from a different position. The tremendous-- the

upheaval experience, if I can call it that-- it completely turned us inside out.

And what turned us inside out wasn't the fact that it was a fire so much as it was the fact that we had to flee from the fire or we would have been killed. It was sort of like a monster putting out its fangs, its claws to try to entrap us in its grip. That we will remember.

These photographs were not taken by me, but I got copies of them. They were taken by a friend of mine. They were taken in the vicinity of the Claremont Hotel in Berkeley on October 20, 1991. And the house just to the left, the big structure, was in every TV clip around the nation because it resisted the fire for the longest time until it finally had to capitulate.

The fire surrounded it, and it's amazing how it was able to resist. But in the end, it, too, was consumed. These pictures don't really give a complete overview of what had happened. That's just a small section, again, taken from the area of College and Claremont Avenues in Berkeley.

Why don't we turn it there.

It just shows-- this one shows the Claremont Hotel. The hotel was where the firemen made a stand. That's where they finally got to dumping some fluid onto the flames to arrest them. But the smoke from there blocked the sky for a distance of maybe a half a mile wide so that the sun, which was out in full force, couldn't get through. You thought you were in the middle of the night. And it was just a terrible experience.

These pictures were from the workshop trip that I took to Taiwan in 1990. I'm surrounded by two of my students who got their PhD degrees with me. The workshop itself was in Tainan, which is the third city or the fourth city in Taipei, Taiwan.

On the left is David [? Janke ?] who is an assistant professor, actually an associate professor, at the Institute of Aeronautics and Astronautics. He's the one who arranged for the workshop. I'm in the middle. On my right is [PERSONAL NAME] Wu, who is an associate professor at the National Taiwan University in Taipei.

They're both in the same area of mechanics, and they're both doing research in more or less the same area. I'm glad they're-- they're not so close together. They're a distance of maybe four hours by train apart. But still, they are not totally isolated like another person I know in Singapore whose closest colleague in his field is 3,000 miles away. So this was a happy time for me to be with them.

And this picture shows a lunch which was arranged the two [PERSONAL NAME] Wu and David [? Janke ?] are on the left against the wall just before. The person at the front, at the left, is another student from Berkeley, but he was not my student.

I'm in the back. David-- I'm sorry, Vernal Kenner is next to me. He's another PhD student of mine who got his degree in 1974, and he's now teaching at Ohio State University. And I can't quite make out who sat on the far right.

But this was, again, the occasion of the seminar. The real problem of the seminar is where to eat lunch.

Or dinner.

Or dinner, yes. And this was a party that was given for me in Tainan at a private restaurant complete with interpreter and everything else. These people-- [PERSONAL NAME] Wu is in the center at the far left and David [? Janke ?] is at the right.

And I guess I took this photograph, but I can't remember the names of the other people that were in there. Anyway, there were associated with this workshop and probably were so-called students in that. Some of them were military. Some of them were civilian.

This is Vernal Kenner, my student from 1974, now professor at Ohio State University, upon the occasion of the workshop in Tainan.

This is upon the occasion of the semi-annual wine tasting at the Faculty Club of the University of California in Berkeley, in front of the Faculty Club. The person on my left is Richard [? Wehrey, ?] who is the manager of the Faculty Club. And I'm on the right, as usual, taking photographs. The wine tasting is always a very pleasant occasion for us. We try to make them all.

That is at the same time the wine tasting. That's my colleague, Harry [? Doran, ?] who's perhaps professionally, in my own department, the closest one to me. We've collaborated on a number of pieces of research. And that's his wife, Selma, who is from New York City.

I'm a little envious. His children-- he's Indian. His children are Jewish, and mine are not. At least my younger daughter is not by the strict law of Judaism, but I think we can circumvent that. Wine tasting at the Faculty Club, 1991, September.

This is the occasion of my initiation into the National Academy of Engineering in September 1989. It was perhaps one of the most joyous occasions of my life and certainly the culmination of my professional work. The certificate is in front of me. My wife and my younger daughter, Remy, are smiling, and we are standing in front of the academy building, looking out onto the walkway.

If the trees weren't there, what you would see is the Lincoln Monument in Washington, DC in September, early October 1989, the 25th year, the 25th anniversary of the academy.

And this is at the banquet of the academy. My wife is on the left, Penelope, Werner. To my immediate right is Michael Carroll, now Dean of Engineering at Rice. He's the one who nominated me for the academy, and so in addition to feeling very close personal friendship, I'm also indebted to him.

To his right is Patsy Mote and Dan Mote. At the time, Dan was Chairman of the Department of Mechanical Engineering, my own department, and his wife. He has since moved up to become Vice Chancellor in charge of university relations.

And this is the group of Berkeleyites at the academy, that we collected ourselves together in a cocktail lounge. To the far left is Ian [? Finney, ?] Then above him is Patsy Mote and, below, her husband, Dan, my wife, Penelope, and I. To my right is Paul [? Nardi, ?] and below him is Michael Carroll.

This was the occasion of the initiation dinner, which was only for the newly-initiated and the council members. And that was my wife, Penelope, and I, and we were both in a very happy frame of mind. It was held in the dome of the academy, and if you ever have a dinner, it is the most spectacular setting that you can imagine, everything in marble. You have names ranging from Archimedes to Einstein and from Freud to Machiavelli, ranging all over the walls with appropriate pictures.

This was circa 1986, my father-in-law, Sidney Alexander, my mother-in-law, Ellis Alexander, my daughter, Remy, and my wife, Penelope. I don't know where it was, but clearly was down South somewhere, perhaps in their yard or garden.