

Regional Oral History Office
The Bancroft Library

University of California
Berkeley, California

Daniel Koshland, Jr. Retrospective Oral History Project:

Yvonne Koshland

Interviews conducted by
Sally Smith Hughes
in 2011

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Yvonne Cyr Koshland, age 90, 2012.

Yvonne Cyr Koshland is Dr. Koshland's second wife and a friend dating back to their undergraduate years at Berkeley. She reminisces about her education, career, and marriages before marrying Dan in 2000. As a fond participant in her new husband's numerous professional events and lively Koshland family activities, she presents an intimate portrait of the man and his contributions in the last years of his life.

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Introduction by Sally Smith Hughes

The Daniel E. Koshland, Jr. Oral History Retrospective documents the scientific, philanthropic, and academic service activities of a scientist with deep and broad ties to the University of California, Berkeley and the wider scientific and philanthropic communities. The videotaped interviews with family members, scientific colleagues, and university personnel focus on the last years of his life, before his death in 2007. They provide perspectives on his diverse activities, his personality traits, and help to bring up-to-date the lengthy oral history with Dr. Koshland himself, which concluded in 1999.

This project, conceived and generously supported by his widow Yvonne Koshland, highlights the years 1999-2007 but also includes flashbacks to Dr. Koshland's earlier activities. The Retrospective thus constitutes an amplification and extension of the earlier oral history but also stands as an unabashed tribute to a man whom the interviewees held in high esteem.

The Retrospective consists of interviews with seven individuals, amounting to roughly twenty hours of recordings, conducted in 2011-2012. Yvonne Koshland, in consultation with the interviewer, suggested the individuals to be interviewed, basing her choices on the unique perspectives on Dr. Koshland that each would present. All the interviews were videotaped, except for those with Mrs. Koshland, which, at her request, were only audiotaped.

Interviewees included:

Bruce Alberts
Jenny Cutting
Catherine Preston Koshland
Douglas Koshland
Yvonne Cyr Koshland
Randy Schekman
Robert Tjian

Project Staff included:

Project consultant: Yvonne Koshland
Project director and interviewer: Sally Smith Hughes
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Project Support: David Dunham

Sally Smith Hughes
Berkeley, CA, 2014

Interview #1: August 9, 2011
Audio File 1

01-00:00:01

Hughes: Today is August 9, 2011, and I'm in the home of Yvonne Koshland in Berkeley, California. We are starting a project to capture Dan Koshland's last decade of life. Yvonne, of course, was central to those years. So Yvonne, why don't we start with your parents and when and where they came from, and lead up to your birth and early education?

01-00:00:51

Koshland, Y.: Okay. I was born in San Diego in August 1922. My father, William Cyr—his family came from Maine. They were originally the Acadians, French people who settled in Nova Scotia. They were expelled from there by the British in the 1700s somewhere. My father's ancestor escaped the expulsion and migrated up the St. John River with his thirteen children and stayed up there in the woods until it was safe to come back when those expelled French started coming back. They settled in Maine on the United States side of the border. There's a whole colony of them up there. There once was a whole *National Geographic* story about the Acadians in Aroostook County, Maine.

01-00:02:24

Hughes: They decided to go to Maine because there were others of their own kind?

01-00:02:26

Koshland, Y.: Yes, right. And not in Canada, which was then English. They were steering clear of them. My mother's father's family was German, and they had been in the United States since the German people came. There was a big German migration to the United States in the 1800s, and they lived in Virginia. Her mother, Eugenia Gordon Little, was Scotch, and they were a Scotch family from Maine. They came out and settled in Point Arena in Mendocino County, and my mother's mother was born there. Her mother was interesting. She was married when she was young. They were married for sixteen years, and she decided to go to medical school because there hadn't been any children. The University of Oregon opened its doors to women, and she became a doctor in 1899, and my mother, Jean Little Cyr, was born in 1900! So it was something of a—[laughter]

01-00:03:57

Hughes: Wouldn't you know!

01-00:03:58

Koshland, Y.: Yes, right!

01-00:04:02

Hughes: Was she one of the first female doctors to get a degree from Oregon?

01-00:04:09

Koshland, Y.: From University of Oregon, yes. In 1899 she got that degree in the first graduating class that included women. She was also a suffragist. My mother

said that when she was a little girl, she hated the idea of being a girl because she was going to grow up to be a woman, and she'd have to be a suffragist. [laughter] But anyway, her parents both died by the time she was eleven. Her father died first and then her mother, and she lived with her aunt after that until she married my father, William Albion Cyr. He was the editor of his high school yearbook, and she was the art editor. She went to California School of the Arts for a couple of years after she got out of high school, and my father went into the army toward the end of the war. Shortly thereafter he came down with the flu and was in the hospital when the armistice happened, so he was in the army but he didn't ever have active duty. [chuckling]

After, they were married, he got a job as an editor of a little newspaper in Parlier, California, which is near Fresno, I think. My mother said that Parlier was the buckle on the raisin belt. It was not very big. My older brother, Rob Roy Cyr, was born there, and then my father got a job being the editor of the newsletter for the Southern California Edison Power and Light, the utility in San Diego, so that's why I was born there. We moved up to Oakland when I was three, because my father had a new job in San Francisco with a magazine called *Electrical West*, which was published by McGraw-Hill for the electrical industry. My younger brother, Gordon Conrad Cyr, was born there when I was three. There's lots more but I can skip that. We subsequently moved to Marin County when I was six, and I went to school in Marin County. My father commuted to San Francisco on the ferry. When the stock market crash came, we moved to San Francisco to reduce the cost of commuting and living so far away, and so forth. I went to Grant School and then to Lowell High School and graduated from there in 1939, and then applied to UC Berkeley in the fall of 1939.

01-00:08:07

Hughes:

Did you know what you wanted to major in?

01-00:08:10

Koshland, Y.:

Well, I did. Cal had a home economics major in those days in the Department of Agriculture. It's long since moved to Davis, I guess. I'd always been good in science, and I was interested in food chemistry primarily because my father knew about a lot of the kinds of things that were being done with electricity in those days. He took pictures of the electrical fixtures of the Golden Gate Bridge, for example, and went way up on the top of the towers. He took pictures inside the Opera House in San Francisco up in the chandelier up above, and Hoover Dam, and things like this.

01-00:09:14

Hughes:

Just because he was interested? Or was this to tout the trade?

01-00:09:18

Koshland, Y.:

They were for the magazine. He was aware of what was happening—the frozen food industry was coming online, and it seemed to be a good kind of

career to get in at the beginning, so that was really the idea that we had in mind.

It was a course that had a whole lot of different kinds of integrated science along with it, because it was about food and the physiology of how it affected the body. There was chemistry, organic chemistry, and bacteriology about food spoilage and all of this kind of stuff. One of the courses I took in the spring of 1940 was bacteriology. It was a lecture course.

01-00:10:33

Hughes: Was this in the School of Agriculture?

01-00:10:38

Koshland, Y.: No. Bacteriology, I think, was in Letters & Science. I'm sure it was.

01-00:10:58

Hughes: It strikes me that for the times you were a little unusual in thinking ahead to a major that would lead to a career.

01-00:11:10

Koshland, Y.: Well, yes. I think a lot of the young women who took this course thought they'd be teachers. I was a good student. I was a member of the California Scholarship Federation all through high school. I was just serious about doing something, and then you could always fall back on being a teacher.

01-00:11:56

Hughes: I'm thinking of my generation which is a little after yours, where so many of my friends, myself included, assumed we were going to get married, and a career was kind of a second thought.

01-00:12:25

Koshland, Y.: Well, I just wasn't thinking that I was going to get married right away, although I did. My best friend, Janet Smith Johnson, and I started this bacteriology class, and she knew somebody whose brother was in the class. He was at Bowles Hall, where Dan [E. Koshland, Jr.] was. Teddy [Theodore H. Geballe] came with Dan. This kind of a connection was how we met each other.

In the fall of 1939 when I was a freshman, there was a humor magazine called *The Pelican*. I signed up to be one of the Pelly girls. I was interested because they had fashion shows, and I was interested in doing that. What you had to do was sell these magazines. They came out, I think, maybe every other month or something like that. You had to sell these magazines on campus—it cost ten cents. Every year they took a picture of the freshman class of Pelly girls and put it in *The Pelican*, and then people voted for Miss Pelican. They ended up with five finalists, and then there was a fashion show, and the five of us were part of it. The judges were women from local newspapers who did the women's pages. And I won this contest.

Shortly thereafter UCLA was having a homecoming at the Cal/UCLA game in fall 1939, and they do their homecoming in a very big way, with queens and whatnot, and they invited UC Berkeley to send a queen down to be part of it. There was also another freshman girl who had been chosen the Sweetheart of Sigma Chi, which was also a big campus event in those days. The ASUC officers decided they would run the two of us off as a kind of a quick thing. And I won that.

01-00:15:45

Hughes:

Was this all based on appearance? Or did you have to perform?

01-00:15:51

Koshland, Y.:

No, it was all appearance. So I went down to UCLA and had pictures and a parade and all of this kind of stuff. But I met a lot of Berkeley student leaders, including the student body president, who was Jim [James P.] Keene. So we started dating. I was already dating him when I met Dan, and Dan was very bashful—sort of tentative. It took a long time, apparently, according to his roommate to get up the nerve to ask me out! [laughter] When I told Dan's daughter Phlyp [Phyllyssa Koshland] about Dan being sort of bashful and tentative, she says, "I can't imagine my father ever being tentative." But he did ask me out, and we went out maybe four or five times, and we double-dated with his sister Sissy [Frances] and his best friend, Ted Geballe.

01-00:17:44

Hughes:

Everybody was at Berkeley?

01-00:17:46

Koshland, Y.:

Yes, we were all at Berkeley.

01-00:17:51

Hughes:

Dan was ahead of you in school?

01-00:17:53

Koshland, Y.:

Yes, he was a junior when I was a freshman. The World's Fair was on at Treasure Island, and Sissy and Ted and Dan and I went over there one time and met his parents and **did** the island. His mother was in a wheelchair. She had multiple sclerosis. I think that she wasn't even talking very much by that time.

01-00:18:36

Hughes:

This was the Hillsborough house? Was that where they were living then?

01-00:18:38

Koshland, Y.:

Yes, they were living in Hillsborough. But we went to the fair on Treasure Island. That was where I met them.

01-00:18:47

Hughes:

What was it like to have a date with Dan? You had the student body president as a comparison.

01-00:19:00

Koshland, Y.: Well, the student body president was very charismatic and witty and so forth. Dan was a lot of fun. He was funny, just always a very good time. He was not very aggressive sexually at all. I think he finally got around to asking me if I would kiss him after about five dates! [laughter] During the summer I was a counselor at a YMCA camp, and he worked at a farm out in the Delta, and we corresponded and so forth. I saw him a few times again in the fall, but by then I was really spending more time with Jim Keene, and finally we were married in February of 1941.

01-00:20:19

Hughes: It was in your sophomore year?

01-00:20:22

Koshland, Y.: Yes, I had finished my first half of my sophomore year.

01-00:20:28

Hughes: Did you drop out of school?

01-00:20:29

Koshland, Y.: Yes, I left school because we first lived in Sacramento for a little while, but then Jim got a job with the federal Department of Agriculture, and we lived in Denver and Montana, back to Denver, out here, up to Seattle. Our first son, Phillip, was born in Seattle the week before Pearl Harbor. We went from there to Idaho and then from there back to Denver and then finally came back out to California and to the Bay Area in 1943.

01-00:21:34

Hughes: Was any of this moving around because of the war?

01-00:21:38

Koshland, Y.: Well, it was just that he was an information officer, and they were extending the food stamp program throughout the West. He worked out of the western regional office in Denver, and he would go to these various places and do the buildup for establishing the food stamp program in the various states that we were in. When we came back to San Francisco, he was with something called the Office of the Housing Expediter, and he worked in various housing agencies for the federal government for the rest of the time that we were married. We lived in Berkeley. First we were in war housing, down on Sixth Street in Berkeley, which is now a senior center, where these units were.

01-00:22:48

Hughes: It was housing built specifically to house people connected with the military?

01-00:22:54

Koshland, Y.: With the war effort, yes. My second son, Christopher, was born in 1946, shortly after the war, and my daughter, Elodie, was born in '49, both of them at Alta Bates Hospital. Then we moved to Palo Alto, bought a house down there, and Jim commuted to the City on the train. There was no Bayshore

Freeway in those days. Well, there was Bayshore Highway, but it was not a freeway. There were stoplights on it and the roadway wasn't divided.

01-00:24:10

Hughes: Were you working during any of this time?

01-00:24:13

Koshland, Y.: No, not anything serious. Phillip was in the Institute of Child Development nursery school in Berkeley. It was in an old house that's no longer there. I was waiting to go take some courses back at Cal. But I got a job in the microfilm laboratory in the basement there.

01-00:25:19

Hughes: Of Doe Library?

01-00:25:22

Koshland, Y.: Yes, Doe Library. We made microfiches of Lawrence Berkeley Laboratory and what was going on up there. My brother had been at Lawrence Berkeley Laboratory when he was a senior and then went on to Oak Ridge [National Laboratory] after that, and he was there at the time that Dan was there.

01-00:25:54

Hughes: Did they know each other?

01-00:25:55

Koshland, Y.: No. I think he maybe met my brother in Berkeley, but my brother was doing something in physics, whereas Dan was doing chemistry. We did a whole lot of filming of chemistry books, which was really sort of a weird kind of a job! But I did that.

01-00:26:28

Hughes: You were taking classes as well?

01-00:26:30

Koshland, Y.: No, I worked at Doe until the next semester started. I went for two semesters. I took eight units one time and seven another time, so I actually was a junior by this time. I also had taken six units, two courses, by correspondence just to get caught up on things. Then I became pregnant with Christopher and he was born later that year, so I didn't go back to school again for quite a while. This is a process! [chuckling]. We moved to Palo Alto. From Berkeley and then from Palo Alto, the commuting to San Francisco for Jim got to be worse and worse and worse, because he would stay in the city and drink with his colleagues after work and spend much of the family money on that kind of activity, trying to impress people and so forth. The marriage ended in 1953. I married Jim San Jule in 1954, and my younger daughter Tamsen was born in 1956.

01-00:28:16

Hughes: Now who was he?

01-00:28:17

Koshland, Y.: Well, he had a public relations agency with Don Stofle, who was a friend of ours. He'd also gone to Cal. I think he was a geology major, but he didn't finish the last year. When the war began, he went to work in the shipyards. And then after the war they formed this public relations firm. But when I met him, he had just been hired as the marketing manager for Eichler Homes. We lived in an Eichler home and things progressed.

During the years that we were in Palo Alto, a friend of mine had gotten me involved with the Girl Scouts in a committee that ran the training programs for the scout leaders in Palo Alto, and I progressed from there to being the president of the council. At that time, the Girl Scouts of the USA were undergoing a big move to consolidate all of these little councils throughout the country into larger units in order to be able to service them better from the national office. So we got involved with the other four councils in Santa Clara County in this consolidation effort. In the middle of all of that, my husband got a public relations job in New York City and we moved back to Wilton, Connecticut for a year. That didn't work out very well, so we came back to Palo Alto.

01-00:31:28

Hughes: He didn't like that position, or you didn't like the place, or both?

01-00:31:34

Koshland, Y.: Well, I think he didn't like the position, and again, he was another drinker. I have to say, I wasn't a very good picker of men—charming guys but who had real weaknesses.

So anyway, I came back and was active again with the Girl Scouts, and when that council was formed countywide, I was the first president. We were one of the first of these consolidated councils, and as such I got invited to go to national meetings of council presidents where we talked about all of our problems and what we were going to do next.

It was really the realization of how much better you could solve a lot of things if you came together on issues that were common to you both and too big for you to solve by yourself that kind of inspired my desire to change my major and be interested in regional government and planning. So in 1964 I went back to Cal again and commuted from Palo Alto for a year and got through my junior year and a little bit into the senior year. And then my husband took a job in Washington, DC. It was kind of a final hope that maybe that job would inspire him to shape himself up. We went and it didn't work. So in '67 my younger daughter, Tamsen, and I came back, and I reenrolled at Cal in the spring of '68.

01-00:34:15

Hughes: Yvonne, you are persistent!

01-00:34:16

Koshland, Y.: Yes, it was important to me. I got my BA in the summer session of 1968.

01-00:34:28

Hughes: In regional planning?

01-00:34:27

Koshland, Y.: No, it was a field major in social sciences, and then I was accepted into the Department of City and Regional Planning in UC's College of Environmental Design for the fall.

01-00:34:44

Hughes: How were you handling running a household with three children?

01-00:34:50

Koshland, Y.: Well, you see by this time I had only the younger daughter. When I went to Cal in 1964, my son Christopher was already there, and we took one class together. He was a sophomore when I came. When I came back in 1968, my daughter, Elodie, was at Cal, and she was in Stern Hall, and so I just had the one daughter at home. When I commuted from Palo Alto, my younger daughter was then eight, and she was in the third grade, so she was in school for most of the day. And my older daughter could be there when she came home. I arranged my classes so I only went on Tuesdays and Thursdays, so it worked. It also worked a lot because my husband was off and working on something in Florida most of the time. I don't think I could have done it if he'd been around, because he really didn't like me going to school. [laughing]

01-00:36:28

Hughes: He wanted you around running the household?

01-00:36:30

Koshland, Y.: I guess so. I think also he suspected that if I got through school I was going to be independent of him. I think that was part of it also.

01-00:36:41

Hughes: Was that in the back of your mind?

01-00:36:42

Koshland, Y.: Yes. I figured that I was going to have to be able to take care of myself and my younger daughter.

So then I majored in regional planning, because that was what I was most interested in. Kent State happened the spring of the year [1970] that I was to graduate, and we didn't know for sure whether the university was going to close down or not. It ended up that we didn't have the big graduation in the stadium; we just had a little one at the College of Environmental Design.

First I had a job with HUD [Department of Housing and Urban Development] in San Francisco. What I was doing there was critiquing the final reports on HUD grants from regional agencies like ABAG [Association of Bay Area

Governments]. One of the other women who was working there was the wife of a guy at ABAG, and she told me that they were recruiting somebody to do a survey at ABAG, and why didn't I apply for it? I did and they hired me.

01-00:39:01

Hughes: Was that unusual?

01-00:39:01

Koshland, Y.: I was the first woman planner they hired.

01-00:39:10

Hughes: That speaks well of you.

01-00:39:14

Koshland, Y.: Yes, well—

01-00:39:14

Hughes: Had you done well in the program?

01-00:39:17

Koshland, Y.: Yes. I'd always done well.

This was just one little study, and it was a temporary thing, but I did well on that and so they hired me permanently as regional planner II, something with a future. And I rose well in there. In the course of time I did a lot of different things, but at one point I was the acting director of planning when they were doing a big environmental management plan and had a very much enlarged staff. Then Prop. 13 came along [1978] just at the same time that the federal funding for that big program ended, and so we laid off a lot of people. A man was put in as the planning director, and I was the principal planner for quite a while, although I did the job of planning director for the last three or four years that I was there. Finally, for the last four months or something, the director gave me the title and salary of the director so that it could be on my resume that I was the director for planning. [laughing] So I retired.

01-00:41:34

Hughes: What year did you retire?

01-00:41:39

Koshland, Y.: In 1987.

01-00:41:45

Hughes: You had gotten divorced?

01-00:41:51

Koshland, Y.: Oh yes. In 1967 we separated, and I finally got the divorce made final after I went to work for ABAG, in about 1970. So it was thirty-three years from then until 2000 when I met Dan again.

01-00:42:23

Hughes: Yes, right, and of course you'd had no communication in that period.

01-00:42:30

Koshland, Y.: No, except that when my older son was born in Seattle, when he was a couple of months old, Sissy and Ted were just married, and he was in the army, and he was stationed up there before he went overseas. She came up with him and came to see me, and I was surprised that they looked me up, but we formed a bond then which we kept going ever since. Whenever we were in the same part of the country, why we would see each other, and we corresponded back and forth as we had our children. They were in Berkeley when her daughter Alison was born, a month before my daughter Elodie was born, so we got the babies together and that kind of thing. Sissy has always been my friend. She would tell me about what was happening with Dan and his family and so forth.

Starting in Berkeley back in 1950 I had joined the League of Women Voters of Berkeley there. My mother paid my dues in memory of her mother!
[laughter]

01-00:44:22

Hughes: The suffragist.

01-00:44:27

Koshland, Y.: Yes, right, and then I took it up again in Palo Alto, not very seriously, but I did go to a lot of the meetings. When I went back to Washington, to Montgomery County, Maryland, I got very, very active in the league there all the time that I was there. We were doing a study of the Metropolitan Washington Council of Governments, which is the regional agency there. This interest was building all of this time. And then I came back here, was going to school and then I was working. I didn't belong to the league but I rejoined again when I retired and was quite active and did studies and programs. I was the vice president for programming on and off over those years. Harriet [Nathan] had been the president of the Berkeley league, and she'd been a long-time consultant to all our various studies.

01-00:46:06

Hughes: So that's how you knew her?

01-00:46:10

Koshland, Y.: Well, I didn't know her as much as I knew of her. Although Jim Keene had introduced me to her back in the days when I was a Pelly Queen. When she was retiring and was being given the University of California, Berkeley Citation, the league was also giving her something at this event. My friend, Ora Huth, who was giving her the citation asked me if I'd like to go. And I thought, sure. While her husband was parking the car and we were walking down to the Faculty Club, I heard somebody say, "Sissy!" I looked down and there was Sissy, Dan's sister, and some other people standing there. So I came down and said hi and she introduced me to her sister Phyllis whom I'd been hearing about for years but had never met before. And then she said, "Well, Danny's coming." [laughter]

01-00:47:23

Hughes: The family always calls him Danny?

01-00:47:27

Koshland, Y.: Yes. They still do. Well, I did. We all called him Danny when we knew him before. And so I said, "Well, I'll watch for him." He got the Alumnus of the Year award back in 1992, I think. As a Cal Alumni Association member I get the magazine, and here was his picture on the cover, and I knew immediately that's who it was even though he didn't look at all like he used to. So when he came in, I knew who it was, and he came up and talked to Sissy who was right there in front of me. He then said, "Good to see you." And I said, "Well, I used to be Yvonne Cyr." [laughing] And he said, "Oh!" He really perked up!

01-00:48:49

Hughes: He remembered right away.

01-00:48:52

Koshland, Y.: Yes. And so we talked for a while and he said, "We should have lunch." And I said, "I'd like that." I think he asked me if I was attached or something. I don't know. I said that I was alone. But anyway, "We should have lunch." And then he went on and talked to other people. So I thought something's really going to happen.

01-00:49:28

Hughes: Did you? Right after the first meeting?

01-00:49:31

Koshland, Y.: Yes, yes, yes. Sissy had been telling me about how sad he was [after the death of his first wife, Marian E. "Bunny" Koshland]. She said that his granddaughter Hannah, from Australia, who is a very lively young lady, had come over and was going to Boalt Law School, and that she really perked him up. And I know that Cathy [P. Koshland] sent [daughters] Maggie and Sarah out there to clean out his refrigerator from time to time and cheer him up and so forth. So he was better, but he was really pretty devastated. Then I didn't hear anything for about three weeks, and I thought well, who knows what. It turned out that he was looking up Cyr in the phone book.

01-00:50:50

Hughes: Not spelling it right?

01-00:50:52

Koshland, Y.: Well, no, it's not Cyr. San Jule was my name, and he hadn't paid any attention to that and couldn't figure out how to get ahold of me. And so he finally called Sissy. She told me later, "I was so good." [laughing] "I didn't call him back to find out if Dan had called me." They talked to each other every day, always.

01-00:51:28

Hughes: So she tried to stay out of it?

01-00:51:30
Koshland, Y.: Yes, right. Although she kept telling me, “You should call him.” I couldn’t—I just couldn’t do that.

01-00:51:47
Hughes: That wasn’t the way it was done.

01-00:51:48
Koshland, Y.: No, it’s not.

01-00:51:49
Hughes: So this was the year 2000?

01-00:51:50
Koshland, Y.: Yes.

01-00:51:54
Hughes: I’ve forgotten when Bunny died.

01-00:51:57
Koshland, Y.: In ‘97, I think.

01-00:51:59
Hughes: So Dan had been on his own for about three years.

01-00:52:03
Koshland, Y.: Yes. So he called and invited me to go to the Gilbert and Sullivan movie that was then playing and dinner.

My father and mother and stepmother were all great Gilbert and Sullivan fans. We went to Gilbert and Sullivan things when we were growing up whenever there were any. We had a book that I played at the piano, and I knew all the words to all of the songs. My father in his youth had once been the judge in *Trial by Jury*. My father had dramatic ambitions all along, and he turned this into skits that he would do at the various electrical association national conferences. He did one where they were all cowboys, one where he was Hitler, and one where they were Russians. We have pictures of all of this. And he was the Santa Claus at the electric club’s Christmas party in San Francisco for years and years and years. They gave a party for Salvation Army children, which in retrospect was kind of condescending, maybe—I don’t know what. But anyway, my children were all elves and fairy princesses to assist Santa Claus for years on end.

01-00:54:25
Hughes: So it was a good choice on Dan’s part! He didn’t know any of this, did he?

01-00:54:28
Koshland, Y.: Yes, no, he didn’t know any of that. I had aspirations in drama too. In grammar school, I used to put on little plays and stuff like that. The principal had me organize a Pageant of the Pacific for our eighth grade graduation performance, and then I was in dramatics in high school. It didn’t go

anywhere after that. Skits are a real secret of success in the Koshland family. [laughter] So we went to Gilbert and Sullivan, went to dinner, and that was very nice.

01-00:55:27

Hughes: Talk about the Danny that you knew at Berkeley and the Dan that you were now meeting many years later.

01-00:55:40

Koshland, Y.: Here was this self-possessed, outgoing person who could hold a conversation with anybody anywhere. In hearing him talk about those days when he was a college student, he was kind of a hell-raiser, but I didn't know that because with me he was always very, very polite. He was tall and very thin, his face was thin, and of course by this time his face was filled out. It was just the difference in appearance and difference in personality. In my mind, all through our marriage, I could never quite fit the young, slender, bashful, blond college friend into this wonderful, outgoing guy I now knew and loved.

01-00:57:06

Hughes: The Dan that I knew was not heavy but hefty. He wasn't a twenty-year-old beanpole anymore. At one stage he was on the South Beach Diet, and there was a lot of conversation over lunch about what he could eat and not eat on the South Beach Diet.

01-00:57:31

Koshland, Y.: Well, I think he cheated.

01-00:57:34

Hughes: He did!

01-00:57:35

Koshland, Y.: But he got a bunch of other people to seriously pay attention to that diet. I would make him his lunch according to the South Beach Diet, but when I was cleaning out his office I did find a chocolate bar. [laughter]

Interview #2: August 11, 2011
Audio File 2

02-00:00:03

Hughes: Yvonne, I'm here for the second interview with you, and it is August 11, 2011. Last time we pretty much got you up to meeting Dan. I think where we should start today is with Dan's proposal to you.

02-00:00:44

Koshland, Y.: The proposal was just before we were about to start out for a trip up to Northern California to stay with some friends in a resort camp they had up there. On the way back we talked about what we were going to do. We talked about eloping, but Dan said he couldn't do that to his family. [laughter]

So when we got back we sat down, and he asked me if I had any questions or if I was concerned about anything about being married to him. I thought for quite a while, and I said the thing that was an unknown to me, really, was that he was so wealthy and that was so different from what I was used to. So we talked about that for a while, and then he said to me, "Well, I thought maybe you were concerned that I was Jewish." It kind of took me aback—I almost felt a little insulted. But I said, "No, not at all." But in retrospect I thought about myself when I was growing up in San Francisco, and there was a lot of anti-Semitism which I sort of went along with because that's what everybody was saying. I didn't know who or what Jews were. I didn't know which of my friends were Jews. This went on through grammar school and high school, and my friends and I were, I'm sorry to say, very snide and sarcastic and whatnot about Jews. Not openly, but among ourselves.

When I met Dan and Teddy Geballe in my bacteriology class, it was the first time that I'd ever really known somebody who was Jewish and known that person well and realized how stupid and ignorant and really awful I had been about that. My friend who met him along with me at the same time and was part of that high school stuff, she and I both talked about that and agreed about that. And I've always felt ever since, that that was a turning point in my whole understanding about Jews. I have not had those kinds of feelings all the rest of my life.

02-00:05:07

Hughes: Did religion enter in at all when you eventually got married?

02-00:05:13

Koshland, Y.: No. My family was not religious. Dan and I went to Kol Nidre services before Rosh Hashanah and atoned a bit. And that was the only thing. But other members of his family were more observant than Dan was.

02-00:06:05

Hughes: How was it for you, who had been single for a number of years, to be married, and married to a man who not only was extremely active and prominent but also had a huge family that he was very close to?

02-00:06:27

Koshland, Y.: Well, I wondered about how they would accept me. I knew I was a nice person. [laughter]

02-00:06:40

Hughes: I agree!

02-00:06:43

Koshland, Y.: His kids were furious with him for being secretive when he popped the news to them, because he hadn't told them anything. First of all, his two granddaughters, Jimmy [Koshland] and Cathy's two daughters, came and gave me the once over. We went out to dinner, and that seemed to go all right. Then Gail [Koshland Wachtel] and Nadine came up from Tucson for a weekend, and they gave me the once-over. And then Jimmy and Cathy, and Doug and his family all came out, I guess for the Fourth of July weekend, and my daughter Elodie came up to give Dan and his family the once-over. [laughter]

02-00:08:07

Hughes: This was before you were married?

02-00:08:11

Koshland, Y.: Yes. He proposed to me in June, and we couldn't get everybody together to come until the end of August. So all of this was kind of preliminary stuff that was going on. My younger daughter who lives nearby, she and her boys had already had a crack at Dan, so my family was lining up.

02-00:08:39

Hughes: They approved.

02-00:08:44

Koshland, Y.: Yes. Of Dan's grandchildren, only his granddaughter Hannah, of his oldest daughter's family who live in Australia, came to the wedding. I have four children who all have families. My second son, Christopher Keene, had died in 1995, but his wife and children are very close to our family, so she came from New York to represent her and Christopher's family. My three children were there. All of Dan's children, except for Ellen [Koshland McCaughey] and her husband and another daughter, were there. We had planned to have a small family thing with just a few friends of each of us in addition to the family, and it turned out to be about sixty people.

But everyone got along very well. Some of my children are just about the same age as Dan's. My older son is older than they are, but it was a pretty good match-up. Dan's second daughter Phlyp is a sculptor. A couple of his children [Doug and Gail] are scientists and one [Jim] is an attorney. Ellen, his

older daughter, is a writer. My children are more in the arts department. My older daughter is a television director, and my son, Christopher, who died was a symphony and opera conductor. He was the director of the New York City Opera for several years. They all sing, and none of the Koshlands sing. [laughter] They're musical and artistic and just different [from Dan's children].

Of course my experience is mostly in government and planning and politics. I know a great deal about how government works, particularly local government. And Dan doesn't know very much at all, which doesn't stop him from being pontifical [rapping on table for emphasis] about it. [chuckling] But there's a lot of back and forth that goes on. But all in all our combined family has been very nice and congenial. The get-togethers are always very creative and a lot of fun, and everybody has good senses of humor. Even the kids that are coming up have got the right genes for the sense of humor, so it's worked out well.

02-00:13:10

Hughes: How are you with being pulled into a much busier life with lots of social activity?

02-00:13:24

Koshland, Y.: Well, that's fine. I've enjoyed it. I didn't go on all of Dan's trips. In retrospect I wish I had, but I met a whole lot of very wonderful people in the course of that. I enjoyed it, and I think I contributed too. We were really very congenial with each other.

02-00:14:02

Hughes: That's wonderful.

What we both came up with in terms of a theme for the last years of Dan's life is science education/science dissemination. Dan himself took on a role as a scientific statesman and a philanthropist. Towards the end of the interviews, which ended in 1999, Dan was already very much involved with the museum in Washington, DC, in Bunny's name [Marian Koshland Science Museum of the National Academy of Sciences]. Could we start there with what you remember of his role in conceiving of the museum? My impression was that he had a very hands-on role in the design and operation of the museum.

02-00:15:42

Koshland, Y.: Yes. He made many trips to Washington that I didn't go on. But I also did go on some. When we were first married, the Academy had just hired a museum director. What Dan said was that after Bunny died he talked with Bruce Alberts, the head of the National Academy of Sciences about preserving memories of Bunny in some way. Dan asked the Academy for some program that he could give money to, and what they decided on was a science museum. The National Academy was formed in Lincoln's time to provide in-depth research and advice on scientific issues coming from the nation's decision-

makers. Dan's idea for this museum's exhibits really was that they would highlight the work that the Academy was doing related to topical issues in this country and to make explanations exciting, fun, hands-on, and easily accessible. Dan said he was aiming at Joe Six-Pack, somebody that was kind of a blank slate as far as some of this material was concerned, and that the museum was also aimed at students—junior high, high school, university—and teachers. Science information was to be widely disseminated in a form that was accessible but was fun and accurate and so forth. At the same time, the space that was available, which was in the National Academy building in Washington, DC, was not very big, so they concentrated at that particular time on climate change, on DNA, and—I can't remember what the other one was. Oh yes, it was infectious diseases. In DNA they not only talked about its use in criminal investigations—

02-00:20:16

Hughes:

Oh, DNA fingerprinting.

02-00:20:22

Koshland, Y.:

Yes, and its use in genetically modified crops.

In the climate change exhibit, they talked about all the various things that are causing it, including cows. They had some wonderful exhibits, one of which was talking about how growth and development was causing climate change.

One very interesting exhibit was called "Lights at Night." Someone had flown around the world taking pictures of every country at night. On a map of the globe a pointer would show where the concentrations of light were. You got to North Korea and there was practically nothing; a lot of places in Africa with nothing. But the United States and Europe and eastern Asia and India are starting to have these huge concentrations of light. The lights indicate where there is air pollution from the burning of fossil fuels to produce all that electricity. There was a choice of actions a country could take to reduce the pollution load. You could poke a button and it would show how much light reduction it would get. And you could poke two or three or four of them and see how much more reduction you would get from each addition, really pointing out that you have to do a lot of things, not just one, to make a difference.

02-00:23:23

Hughes:

Dan wanted the museum to be very interactive.

02-00:23:32

Koshland, Y.:

Yes, right.

02-00:23:33

Hughes:

He wanted to pull people in.

02-00:23:38

Koshland, Y.: In to do it, right. And there was a lot of that kind of thing in it. They hoped to also have these exhibits travel, although that turned out not to work out too well. Most small museums can't afford to pay for the exhibit, and for the larger museums, the exhibits are too small. So what they've been doing more is giving instructions on how to build your own exhibit. The latest incarnation is that the science museum wants to be a test bed for exhibits on a smaller scale and then make plans to replicate them available to other museums.

02-00:25:02

Hughes: Is that a change of direction?

02-00:25:09

Koshland, Y.: Yes, right. They've stopped putting effort into the traveling stuff, and they've really toned it down more to high school and young adults. They still have a very active program with the schools, bringing busloads in. They have this very active website with all of the information available on the website plus curriculum plans for teachers and a lot of other things.

02-00:25:57

Hughes: Does the museum benefit from being close to the National Mall? Do people leak over from the mall museums?

02-00:26:08

Koshland, Y.: It is sort of close to the mall but it's also close to a million other things. It's close to the athletic arena and the builders' and women's museums. Anyway, I think that yes, you walk by it, and there it is.

The first director, David Ueko, turned out to be not satisfactory, so they went back to a woman who was on the staff at the academy named Patrice Legro, who had worked on it originally and then had been assigned to do something else. They brought her back in, and she worked very closely with Dan. The kinds of things that the original director wanted to do just were not what Dan wanted to have happen. So they developed these three exhibits. When you go in, first there's a video that lays the background for what you are going to see and has Dan and several other people talking. On my computer, I have forty-three pages in large print of what that video was talking about. But that's too many pages to print out.

They had a design company that was building the exhibits. There was a preview in Irvine that we went down to. My children who lived in southern California came and participated in that. There were several focus groups that came in. They had a bunch of high school teachers come in and go through the museum, followed by a discussion about what they thought about it. They had some other groups come through, made some changes reflecting comments from the groups, but things were generally pretty well received. So then they brought the exhibits back to Washington and put them up.

The opening of the museum was extremely glamorous. The D. C. councilman whose district the museum is in came. High school students from a school nearby ushered. They closed the street out in front and had this huge Rube Goldberg contraption where Dan dropped this board saying “IDEA” in, and it went around wheels and up inclines and down chutes and came out as “MUSEUM”! Then everyone went into the museum for a tour. It was a lot of fun. Most of Dan’s family came from all over, and even my brother, composer Gordon Cyr, came down from Baltimore.

02-00:31:24

Hughes: How active a role did Bruce Alberts play in the design of the museum?

02-00:31:35

Koshland, Y.: Well, I’m sure that Dan every time he went to Washington D. C. also talked with Bruce. I know, for example, that it took some persuading to release the original director.

02-00:32:00

Hughes: The first director was too conventional?

02-00:32:07

Koshland, Y.: He had ideas of his own that were not what Dan had in mind. He brought on people who were spending a lot of money making a lot of fancy-looking things to look at that just weren’t what Dan wanted, and he wasn’t able to get him to back off on it. He’d run a museum somewhere else and wanted to do the same thing here.

02-00:32:50

Hughes: You spoke off-tape that Dan thought that he had left an adequate endowment but then we had the economic crash.

02-00:33:07

Koshland, Y.: Yes, right. The crash was after Dan died, and museum and academy representatives came to the Koshland children with proposals to see if they could help. What the children decided was that we needed to have a discussion about the future of the museum, and so we had a meeting down at the San Francisco Airport. It had museum people and science people and people from the National Academy and Dan’s son Jimmy and me. I’m not a trustee, but the five children are. But because I had this experience all along with the development of the museum, they invited me to come. It was a very interesting conversation, and what came out of it was this idea of narrowing the focus to high school and young adults. Poor old Joe Six-Pack kind of left the scene. [laughing] And also that it would be a “test bed”, that they would do an exhibit on some issue that was common everywhere and have it as a model for other museums and other kinds of institutions to copy. So that’s what came out of it. So the last piece of information I got, they had regained some of their losses. But the last week [when the Dow dropped steeply]—who knows! But it really is a little jewel box of a museum. I don’t know whether

they still do it, but it used to be that when you went in they would do a swab of your cheek and give you a printout of your DNA!

02-00:36:35

Hughes: Isn't that a kick! Well, should we go on to Stanley Hall?

02-00:36:50

Koshland, Y.: Yes, and I can't help you an awful lot about that. I know that he was very involved in meetings about that with the chancellor Robert Berdahl and then Robert Birgeneau, with the people involved with campus buildings, and so forth. But he was primarily involved with the way the building was laid out in order to cause cross-fertilization among the sciences that were represented there as chemistry and biology and biochemistry and microbiology and, I think, computer sciences. I don't know whether there's physics in it or not. Physicists tend to be pretty close to the chest. But there may be some—physical chemistry maybe. He didn't live to see the new Stanley Hall completed, but I have pictures of him in a hardhat in the hole in the ground when it was dedicated by Governor Gray Davis. As far as I know, it's happening the way he hoped that it would.

02-00:38:59

Hughes: Stanley Hall had been various things, but perhaps most prominently it had been Wendell Stanley's virology department. That's whom it's named for. Was there any controversy when the purpose of the building itself became more multidisciplinary?

02-00:39:35

Koshland, Y.: That I don't know.

02-00:39:34

Hughes: Certainly that was the way science was going.

02-00:39:49

Koshland, Y.: Right. I know there was unhappiness because the parking lot got eliminated.

02-00:39:57

Hughes: The prime concern of people at Berkeley seems to be the parking! [laughter] You get a Nobel Prize, and the big prize really is that you get a parking spot on campus!

02-00:40:41

Hughes: My memory is that Dan had a lab almost up to the end.

02-00:41:07

Koshland, Y.: He had a lab all the way up to the end. The people in his lab were working on, among other things, this invention that he applied for a patent for. The patent was granted after his death.

02-00:41:35

Hughes: Can you say something about what the project was?

02-00:41:39

Koshland, Y.: Yes, I certainly can. [interruption; searching through papers]

02-00:42:12

Hughes: You're welcome just to read the description in the patent application, if that's the best way to do it.

02-00:42:49

Koshland, Y.: [reading] "The invention is designed to use the energy of the sun to convert oxidized carbon (CO₂) to reduced carbon (methane) which can then be used as fuel in heating, transportation, and other commercial applications.

The patent is designed to cover the use of solar energy to convert CO₂ to methane using biological organisms. Since no bacterial species carries out such a process I will use photosynthetic bacteria such as cyanobacter to convert CO₂ to carbohydrates, such as glucose or [she translates the chemical symbol as, 'some kind of an alcohol' and resumes reading] and then use methanobacter that can convert carbohydrates such as glucose" [she translates the chemical symbol as 'sugar alcohol'], "to methane. Ultimately I believe it possible to use a single organism to convert CO₂ to methane, but it's more expeditious to utilize a two-step process in which CO₂ is first converted to carbohydrates and a second step in which carbohydrates are converted to methane. The advantages of such an invention are that photosynthesis is a well-known biological process and methane is a regularly utilized fuel that is regularly piped around this country and easily stored in large quantities. Since methane is widely used in home heating and industrial processes, converting cars to run on methane or a methane derivative like octane should be a lot easier and more efficient overall than converting cars to run on hydrogen."

The complications of using the bacteria is that the cyanobacteria had to be genetically modified in order to produce carbohydrates faster than they did, and the methanobacter need to be modified in order to produce the methane faster. The first patent that he applied for, the one that was finally approved, had some of that modification of the bacteria. But he had subsequently applied for a second invention that would try to even further accelerate both bacterial actions because the process was not producing methane efficiently enough to make it less expensive than some of the other alternative fuels. And that one he was still working on and was having not too encouraging results about whether what they were doing was beefing it up enough.

02-00:46:59

Hughes: Increasing its efficiency.

02-00:47:01

Koshland, Y.: Yes, right.

02-00:47:02

Hughes: Was all this research happening in his own lab?

- 02-00:47:07
Koshland, Y.: Yes.
- 02-00:47:10
Hughes: Was it his idea initially?
- 02-00:47:11
Koshland, Y.: Yes. It would have involved a lot of space to do this. We thought about doing a pilot pond in our backyard in Lafayette. We never quite got around to that.
- 02-00:47:41
Hughes: Have any companies licensed the patent?
- 02-00:48:13
Koshland, Y.: No, I don't think so. UC Berkeley has the patents, and the Lawrence Berkeley Lab has them. They have been doing some photosynthesis things up there, but I don't think they've been working on doing it through bacteria.
- 02-00:48:44
Hughes: It would be interesting to see when the new Energy Biosciences Institute building is completed whether there will be projects to continue something like this.
- 02-00:49:00
Koshland, Y.: My own thought is that the size of the apparatus is kind of a deterrent, but you never know.
- 02-00:49:16
Hughes: You mentioned off-tape that Dan had been working on Alzheimer's in the last ten years.
- 02-00:49:27
Koshland, Y.: Well, he'd been working on it for a long time.
- 02-00:49:30
Hughes: And do you know enough about it to discuss it?
- 02-00:49:33
Koshland, Y.: No.
- 02-00:49:37
Hughes: It seems on the surface a diversion from what he had been doing, because I think of him as first a chemist and then a biochemist working on enzyme mechanisms.
- 02-00:49:56
Koshland, Y.: Yes, right. Well, I suppose there may be enzyme mechanisms involved in Alzheimer's.
- 02-00:50:05
Hughes: Oh, I'm sure. I bet there's a link there somewhere.

[interruption in recording]

02-00:51:21

Koshland, Y.: In the latter part of 2006 Dan conceived an idea of having a meeting between senators and the National Academy members to talk about what the academy had to offer to decision-makers about climate change and global warming and strategies of alternative energy production. He got the agreement of the academy to do this and sent out invitations and had responses from senators that they were interested in having a kind of a roundtable discussion about the whole issue and how the academy could assist them in dealing with some of these emerging issues. The senators agreed to come, but then as we approached the date it turned out that they had to be on the floor or somewhere else, and they had to give up the idea of a meeting. Dan hit upon an alternative strategy that they thought might even be better, of making a DVD of a virtual meeting between scientists and policy-makers, and then make the DVD available to a wide audience as part of the Marian Koshland Museum and National Academy program. It would work that each of these scientists who had agreed to come to the meeting (that never happened) would record a brief five-minute talk with PowerPoint slides, and then it would be made into a program that would be sent to policy-makers in Washington to respond to. This would set up a discussion back and forth between the two.

02-00:54:14

Hughes: Unfortunately, the virtual presentation did not happen.

02-00:54:18

Koshland, Y.: That's right.

02-00:54:19

Hughes: Why was that?

02-00:54:23

Koshland, Y.: Well, it was because it was taking longer for everybody to get their little piece in, and they were still coming in after he died. And some of them didn't ever come in. This was all turned over to LBL, and I don't know what happened after that. Steve Chu [director, LBL, and then Secretary of Energy in the Obama Administration] was one of the people who was supposed to be one of the speakers.

02-00:54:53

Hughes: As in so many things in life, you need somebody pushing, somebody heading the show, and when that person disappears, for whatever reason, often very good causes evaporate. It takes somebody to keep pushing, and Dan was really good at that.

02-00:55:25

Koshland, Y.: He was a pusher. [laughter]

02-00:55:28

Hughes:

Yes, and he knew so many people too! I remember noticing in the many interviews that we had how constantly the phone rang. The calls came from not only all over the country but all over the world, so it gave me a real insight into the breadth of his network.

02-00:55:59

Koshland, Y.:

Both the patent and the DVD at the age of eighty-seven demonstrate the engagement, the curiosity, the wide association that he had. His curiosity about people, about nature, about science, about everything, just kept percolating along.

02-00:57:02

Hughes:

Well, should we talk about the type of papers that he wrote toward the end of his life, which you described as more philosophy of science?

02-00:57:27

Koshland, Y.:

Yes. [interruption in recording]

02-00:57:50

Koshland, Y.:

There were fewer scientific papers, which were often written with one of his lab people. Others were more philosophical about science and discovery and so forth, with titles like “The Seven Pillars of Life,” which he was asked to present at many conferences in the last three or four years after he wrote it. There was one called “Nonconformity,” one called “Crazy, but Correct,” one called “Serendipity,” and then the last one that he wrote was called, “Cha-Cha-Cha in Science,” and it was talking about the role of challenge, chance, and change, I think, in coming up with some new idea. But that was kind of the way he was thinking.

He taught a class one semester of each year for two or three of the last years when we were married. They were for undergraduates and some graduate students, and they were really classes on making presentations of scientific work. [searching through papers] Lots of people who were taking biochemistry courses had English as a second language, and it was a whole question of how they organized their thoughts. I’m trying to find— Here it is. So the way the class was organized was: [reading] “The class will discuss original research papers on conformational diseases on two specific examples: Alzheimer’s and prion diseases. In the first two sessions we will discuss review articles on Alzheimer’s and prions, and then students will discuss individual papers in each category, about half in each category. At the first organizing session I will have a list of papers equal to the number of students, and each student will choose a paper which he or she prefers to discuss. If during the course of the semester a new paper appears to which a student prefers to switch, then he or she will be allowed to do so with the consent of the instructor. Thus, by the end of the course, the class will obtain a pretty good glimpse of the current status of this rapidly expanding field.”

- 02-01:02:11
Hughes: Interesting idea. Did it work well?
- 02-01:02:17
Koshland, Y.: Yes.
- 02-01:02:21
Hughes: Were these graduate students?
- 02-01:02:23
Koshland, Y.: Some of them were, but most of them were undergraduates.
- 02-01:02:27
Hughes: Headed toward science?
- 02-01:02:31
Koshland, Y.: Yes. Probably in microbiology or something. We've had the largest undergraduate section at the university in biology and biochemistry and—
- 02-01:02:53
Hughes: Molecular and cell biology, I think is the new name. Well, he didn't let moss grow under his feet, did he?
- 02-01:03:04
Koshland, Y.: No! [interruption in recording]
- 02-01:03:55
Koshland, Y.: I want to comment on Dan's relationship to the people in his lab over the years. Very, very close work and feeling among them. He and Bunny used to have the lab people and their families come out to the house in Lafayette and have a picnic and swimming quite a lot, and there are a lot of pictures of that. We didn't do that. We did have them out one year. The thing that is so remarkable, many hundreds of young people who went through his lab and went on to fame and distinction all over the country and all over the world still have this connection and this fondness back to those days.
- 02-01:05:51
Hughes: Should we talk about Dan's relationship with the chancellor's office? Do you know much about that?
- 02-01:06:03
Koshland, Y.: Well, I only know that both Chancellor Berdahl and Chancellor Birgeneau, who were chancellors when I was married to Dan, relied very heavily on his advice on all kinds of matters. And I know that he was, for University Relations, a spokesman all the time, took part in all kinds of fundraising things that University Relations held. Dan gave general advice on everything, such as dealing with the government in Sacramento. I don't know if they had a lot of dealings with the federal government, but they certainly did with the state government on behalf of the university. He was a great, great advocate wherever he went.

02-01:07:50

Hughes: Well, he loved the university.

02-01:07:54

Koshland, Y.: Yes, he did; he loved it.

02-01:08:00

Hughes: Do you know how it came to be that there is a science building named after him in his lifetime? That's a little unusual.

02-01:08:12

Koshland, Y.: Well, yes. He wrote something in the alumni magazine when he was the alumnus of the year, which I think was 1992 or somewhere in there. They named Koshland Hall after him because of his work on the reorganization.

02-01:08:52

Hughes: Oh, the reorganization of biology at Berkeley.¹

02-01:08:59

Koshland, Y.: He wrote that he wasn't quite sure about this because buildings were usually named after people after they were dead, and he didn't think he was dead! [laughter]

02-01:09:18

Hughes: Dan seems to have had quite a special relationship with the Weizmann Institute of Science.

02-01:09:31

Koshland, Y.: Well, he did over the years. They have an office in San Francisco, and he had a lot of contacts with them. And I think that there were philanthropic connections from the family with the Weizmann before he became associated with them. But he went there several times to be in symposiums and things like that over the years. We did go to one when we were married, but he had already made many contributions to the Weizmann Institute. He was funding a couple of scholars there who were doing studies that I'm not familiar with. He had also made a promise in his will to the Weizmann Institute as well. And he just had many, many friends there, and I'm not familiar with exactly what work they were doing that he was involved in.

That time that we went, we were also picked up by Daphne Noily, Northwest Regional Director of American Associates of Ben-Gurion University. She drove us down to Ben-Gurion, and we had some meetings in the campus at Beer Sheva. Then we went down into the Negev, into the desert at Sede Boqer where they have an institute for desert studies and saw some labs where they were growing food plants and decorative plants that would grow in the desert. We also talked with the people who were growing various kinds of fish that would thrive in salt water or in the desert environment, and they were already

¹ See the oral history, *The Reorganization of Biology at the University of California, Berkeley*, at: http://digitalassets.lib.berkeley.edu/roho/ucb/text/reorganization_biology.pdf

selling these fish all over the world. They had many studies about promoting development to encourage living in the desert, and experimenting with houses that are constructed so that they are naturally air-conditioned, and then the kinds of things that they are doing with the Bedouins there too. So he got really very interested in that and began also making contributions there. We went back two years later, where they gave him an honorary doctorate.

Phlyp and I are funding a program there now to try to develop the Negev as an attractive place to live so that Israelis will move out of the West Bank and get into their own country where they're not confrontational all the time. Now they're rioting in the streets about there not being any housing, so why don't they build some of those smart houses in the Negev? There are a couple of funds at the Weizmann, one in his father's name and one in his grandmother's name, so I think there was a family connection there before.

02-01:15:44

Hughes:

Well, should we move on to awards? There are two main ones, I believe, in the last ten years. The one that came in 2000 was the Glenn T. Seaborg Medal.

02-01:16:04

Koshland, Y.:

Yes, that was at UCLA.

02-01:16:09

Hughes:

Why was that given to Dan?

02-01:16:15

Koshland, Y.:

Well, he goes way back with Seaborg. Seaborg was the one who called him about going to the Manhattan Project. Dan had graduated in 1941 and had gone to work for Shell. But he got a call from Seaborg because he had been the very top student in his graduating class, and Seaborg said to him that he had the most important job in the world to offer, and he couldn't tell anybody about it. Dan was intrigued. So he went off to the University of Chicago.

02-01:17:37

Hughes:

Yes, he talks about that in his oral history. How does the medal relate?

02-01:18:08

Koshland, Y.:

Well, the medal is to honor individuals for their significant contributions to chemistry and biochemistry.

02-01:18:16

Hughes:

Well, that's right on. What about the Welch Award in Chemistry that Dan received in October 2006. Was that also for lifetime achievement?

02-01:18:50

Koshland, Y.:

I think in chemistry, yes. Joe [Joseph L.] Goldstein had something to do with that.

02-01:19:01

Hughes:

What was Goldstein's role?

- 02-01:19:12
Koshland, Y.: I think he instigated it.
- 02-01:19:31
Hughes: Well, the last category is miscellaneous! [laughter] I want to bring Levi Strauss in. The company was, of course, a big factor in his early life. How closely was he involved with the company?
- 02-01:20:09
Koshland, Y.: Well, I don't think that he was very much involved in it at any time. Certainly in the years that I was with him it was peripheral. I think that his sister Phyllis's son Bobby was on the board at the time we were there. But the Koshland family by that time was really not very influential in any of the decisions that were going on there. The Haases were much more involved in all of that, and Dan and his family, and thus me, were often involved with the Haases.
- 02-01:21:39
Hughes: So you heard through them?
- 02-01:21:40
Koshland, Y.: Yes.
- 02-01:21:41
Hughes: Was the company at least a passing topic of conversation?
- 02-01:21:47
Koshland, Y.: From time to time. It was not—there were just so many other associations rather than the company. Everybody still wore Levi's. [laughter] I don't think anybody would dare to have a designer jean!
- 02-01:22:16
Hughes: Is there anything to be said about the company going public?
- 02-01:22:19
Koshland, Y.: No, because Dan was not involved in what was happening with the company at all. He did talk about it with Warren Hellman, who was on the Levi Strauss board. Warren was a cousin once removed.
- 02-01:22:32
Hughes: You talked about the two families coming together. Is there more that you want to say about family?
- 02-01:22:59
Koshland, Y.: I don't think so. I just feel very much a part of their family—I'm still part of them. Our two families don't get together as often, always Thanksgiving, but otherwise not as much, because my children are all working, and they don't get away from wherever they are.
- We were going to talk about the San Francisco Foundation program with high school students that Dan and his wife began back in 1992. They had been

inspired by a story in the paper about a young student, a junior in high school, who had, I think, no father at home and two or three siblings and yet was maintaining a very high grade point average because he wanted to go to college. He was taking care of his family, he was being active at school and in his community, and so forth. And they thought that there must be people like that in San Francisco too. They saw this story in New York, and they thought that they would talk with the San Francisco Foundation about their idea to set up some kind of a program of giving help, choosing juniors and then giving them some modest help in their senior year so that they would have less stress in supporting the family or paying for SATs and orientation tours and things like that in their senior year. And this was before computers or anything like that that they might need money for.

And so they worked up a structure for doing this with the San Francisco Foundation. The first year I don't know how many they interviewed, but they gave three awards and over the years they gave two or three or four or something. Then when Bunny died I don't know that Dan was involved very much anymore. After we were married in 2002 we started going and interviewing the kids again. I think the foundation, in the interim years, had kind of done it themselves. We are now having a lot of trouble getting records about those later years. There was one staff member who handled it all the way through to 1997, and then there's a sort of a gap in there. But we picked five students for awards in 2002 and then I think six the last year that Dan and I did it.

The foundation got much more organized about the way it reached out to the schools and the counselors. What we were looking for were first of all students who were doing very well academically and that were doing so while being faced with financial and social challenges. Increasingly over the years these young people have been immigrants and often have language problems. And if they don't have language problems their parents do, and increasingly they are not eligible for public government financing of their education or anything. These children are quite remarkable. They're fabulous students; they are active in their schools; they help their classmates who are struggling with subjects and English. Their family situations you wouldn't believe. Yet they come through, and when you meet them after you've read these histories, and they each do a little personal essay about why they think they should get this award, you think boy, what a load! These chirpy, smiley, little kids come in and they are really very extraordinary.

Dan said in his own oral history that you have to be careful about the San Francisco Foundation wanting to take a social-worker point of view because they have economic and social problems. But he said that that wouldn't go; they had to be good students.

02-01:30:35
Hughes:

Yes, I remember Dan saying that. Education was one of his main goals.

02-01:30:54

Koshland, Y.: Yes, it absolutely was. He was really very impressed by my history of education. It was so important that I kept coming back! [laughing]

It used to be that we had a different staff person at the foundation who was assigned to our project for six months or something. Every year we had a different one. Now we have a permanent, half-time coordinator.

02-01:32:03

Hughes: So there's continuity.

02-01:32:03

Koshland, Y.: There's continuity. She's also doing research and finding out about what's happened to all of the honorees in the past. The success stories are really quite extraordinary. They do get into college even if they get a dinky little bit of money from us. But now the coordinator is much more able to connect them up with appropriate funding sources in the city that will bolster this, and of course the fact that they are a Koshland Young Leader Scholar with the San Francisco Foundation makes them visible to other funding organizations. Now we're doing eight, and we've upped the money. The foundation now has it be available for two years, the senior year and the first year in college. Generally, they all get themselves a computer first thing. And the letters they send are quite remarkable.

02-01:33:30

Hughes: So it's eight students a year? Is that how it works?

02-01:33:37

Koshland, Y.: In 2002 when I first did it, we had about seven or eight applicants from six high schools, and this last year we had eight-four from thirty schools. Now there are a whole bunch more schools than there were in the early 2000s. There are a lot of smaller schools, some of them are charter schools, and some of them are not.

02-01:34:14

Hughes: All in San Francisco?

02-01:34:14

Koshland, Y.: Yes, and they are all public schools. They're not private schools.

02-01:34:24

Hughes: Well, it sounds wonderful.

02-01:34:24

Koshland, Y.: Yes, it is. It's one of the nicest things that I do. Everybody else thinks that way when they hear about it too. Gail Koshland and I are the family interviewers, and sometimes Jimmy [Koshland] if Gail can't come. And one time Ellen [Koshland McCaughey] was here from Australia. She has set up an education foundation in Melbourne, because Australia doesn't really support its public schools very much. So the whole family is very education-oriented.

02-01:35:17

Hughes: Well, shall we discuss the Daniel E. Koshland Community Park in San Francisco?

02-01:35:25

Koshland, Y.: Yes, let's do. The park was founded while Dan's father was still alive, by Dan and his sisters Frances and Phyllis as a tribute to their father, Daniel E. Koshland, Sr. It was a vacant lot to begin with, and then there was an apartment building downhill from the lot that was cleared off and [the land] added, so it's about a quarter of a city block in Hayes Valley. It had originally had a mansion on it, but that was long gone. Across the street there is a public housing project. Landscape architects Royston, Hanamoto, Beck, and Abey and people in the neighborhood designed the park. Quite an interesting story. I don't know whether Dan said anything about that in his earlier interviews.

02-01:38:17

Hughes: I can't remember.

02-01:38:20

Koshland, Y.: It ends up level at the top end, but it goes down the hill, and it has basketball courts for youth. It has an enclosed area for young children, with slides and stuff, and then there is a senior area where there are tables for games and seating and so forth. Then there are terraces that go down that have plots for members of the neighborhood to have a section where they can grow [vegetables and flowers].

02-01:39:20

Hughes: Oh, community gardens.

02-01:39:22

Koshland, Y.: Yes, and then further down than that there is the education garden. The city takes care of the general basic maintenance of the property, but the neighborhood organization, which was originally called the Hayes Valley Neighborhood Parks Group but is now called Community Grows, has taken over the programming of the park.

The park had quite a history. It was dedicated when Mayor Alioto was the mayor. It then fell into some bad times. This was before there was very much of the community organization involved. There were dogs and there were drug dealers and so forth and so on, and there needed to be fences. It got to be in pretty bad shape. And so the family came back again and contributed some more money, and they did build some fences so it can be locked at night. The city promised that they would do more surveillance of it. In the meantime, Community Grows got started, and it has a contract with the John Muir School which is a couple of blocks away, and it has a garden at the school. But it also conducts the school's science curriculum—it's an elementary school—at Koshland Park, where the kids grow vegetables and they learn about nutrition. The housing project across the street has a community room and sometimes they have cooking classes there. There's a restaurant in the

neighborhood that sometimes has adult cooking classes. They do the full science curriculum for the first through fourth grades at John Muir.

Many other community groups now contribute time or help. They're now doing community gardens at a couple more elementary schools in the neighborhood. They got a big federal grant and had an artist-in-residence for one year who worked mostly with the kids in the neighborhood, designing tiles, about how they felt about the park mostly. They're placed in the wall on the Buchanan Street side, and then on the Page Street side that goes down the hill. It's really quite a sensational-looking thing.

Dan kept trying to get the City of San Francisco to contribute more money, because Community Grows kept coming back to the family for help. Sisters Sissy and Phyllis have given them money every year. Dan would balk but then he would do it. Then he got into conversations with the city. He wanted the city to come up with more money, and that's where he didn't understand how local government operates. This is one park of fifty or something like that, and the city has budget problems. They just can't do it, but they provide custodial and maintenance functions. The Community Grows people do maintenance too, and they have many community work days throughout the year.

02-01:45:21

Hughes:

Did you try to get your point of view across?

02-01:45:25

Koshland, Y.:

Well, just before he died, Barbara Wagner, executive director and founder of Community Grows, came to him because they were in terrible straits, and so he gave her \$100,000—much more generous than I had known him to be before. But then she came back the next year to the family after Dan died. Community Grows had one program that we really liked, for teenagers, which they call the BEET Rangers Program. They give a stipend to about fifteen kids who come on Saturdays for three months, and they learn about basic gardening, how to use tools and maintain landscape. They take them on tours—to the recycling center, to the farms, and other places. They do various other kinds of things and give them certain basic skills to be employed as gardeners or as park help. But there wasn't enough money to continue it.

Barbara Wagner is very charismatic, but she's not much of a financial manager. So the family decided that we would consider a two-year grant of \$100,000 per year if they would engage a consultant to help them get on a stable foundation so that she didn't have to come back every year for little bits of money. Mary Porter, who is Douglas Koshland's wife, worked for the Baltimore Parks & Recreation Department for twenty-three years before their family moved here to Berkeley in 2010. She and I met with the Community Grows consultant many times. Community Grows submitted a proposal for the consultant to help with financial and organizational reform and to provide a firm foundation for the BEET program, and the Koshland family approved

it. This first year of the grant they are doing a whole lot more. I think because they got a boost from us, many other funders and groups are coming in, because we see them working with many more non-profits and conducting more programs and serving more people. Board organization is proceeding apace and they have a finance person. There are frequent fund-raising garden parties and work days. The BEET program is solidly based, with three sets of Rangers per year, half of its funding coming from the Koshland Foundation.

02-01:49:14

Hughes: Why don't we end with whatever you wish to say about Dan's health.

02-01:49:34

Koshland, Y.: Well, we were both taking pills for high blood pressure and cholesterol and things like that. But several times before we were married he had told me about these fainting episodes that he would have, usually at a big meeting or reception or a cocktail party.

02-01:50:18

Hughes: Oh, really!

02-01:50:19

Koshland, Y.: Always all these people around. He fainted, and then once he fell down he would immediately wake up. But usually he would get carted off to the hospital. One time his heart stopped and there was a doctor who happened to be sitting next to him at the banquet table who pounded on his chest and got his heart going again. He woke up in the hospital, and he couldn't understand why his chest hurt! He self-diagnosed that he was allergic to shrimp, because there was always shrimp at these kinds of things, and so he avoided shrimp after that.

02-01:51:25

Hughes: And what year was it that his heart stopped?

02-01:51:28

Koshland, Y.: I don't know, but it was in the nineties. So there were these tales, and he was very busily not eating shrimp and telling these stories.

When they moved out of old Stanley Hall in order to tear it down, he moved down into Barker Hall, and it was a really long hard day. He was having lunch with his lab guys and fainted. That time they took him off to Alta Bates Hospital. I wasn't home when they called. They left a message and so I had to pick him up. There was no shrimp involved that time. Richard Goldman, who was married to his cousin Rhoda Haas, used to have a summer party every fall in Atherton. We went to one of those—I guess it was in 2002—and he was standing and talking to someone in a wheelchair and having a drink. It was a warm day, and we were out in the sun, and he sat down suddenly and then keeled over with one of these faints. As soon as he was lying down he woke up. They trotted him off to Stanford Hospital, and he stayed there overnight, and they did a whole bunch of tests. [interruption] He didn't like that too

much! No, wait a minute, it was the year before that. He was on the board of something called *Annual Reviews*. They're the outfit that sends out collections of recent Academy articles in various disciplines each year. Again, it was the end of the day, he'd had meetings all day long, we'd had cocktails, and then they had a little musical interlude. We were sitting in there and he fainted that time. Randy Schekman and his wife, who is a nurse, were sitting right in front of us, and they helped. It broke up the meeting. So he went to Stanford hospital, and they did all these tests. What they said was that he was dehydrated, and this was a long day and he hadn't been drinking water. He'd had a drink, and that's dehydrating, and it was hot and sweaty and so forth.

Then the next year we were at this party at Richard Goldman's and this happened again. Off to Stanford Hospital again, and Dan stayed overnight again. But this time they said that he had a vasovagal syndrome or vasovagal syncope, or something like that, which when he got dehydrated something just snapped, turned off his blood to his brain or something, I guess. As soon as he was horizontal, why the blood flowed to his brain. So we were very careful. I'd force him to drink water all the time, and then he would sit down a lot when we were at these kinds of occasions. He never showed any signs of stroke, although the Stanford doctor said that there was some evidence that he had had a mild one years ago, but whether it was connected to this problem or not he didn't know.

So then we were in New York at a Lasker conference, and we were in the hotel. We were supposed to be going to a dinner, and he wasn't feeling very well. He was coming down with the flu, and he started vomiting and had diarrhea and that dehydrated him. So he had to be taken out of this hotel. We took him out down the back elevator so that he wouldn't scare the other hotel guests, off to New York University Hospital. But this time we knew what the trouble was, so we didn't stay overnight. They brought us back and up the elevator again. Then I came down with the flu the next day, so we had to postpone our flight home and then we had to be wheel-chaired onto the plane.

But the thing that was interesting was that every time we ended up in one of these hospitals, why there was at least one of the residents or the something-or-others who either knew of him or one of them had been in his class. One young woman doctor in the New York Hospital said, "I looked you up on the computer! And you're famous!" [laughing]

In December of 2005 at home he had a slight stroke, and he had lots of tests. They adjusted his heart medications and so forth, and he had numbness in his hand and arm for quite a long time after. In July, 2007, he just stepped out of the shower and collapsed. He was unconscious for two days and then died quietly at Kaiser Hospital in Walnut Creek. All the kids came, everybody, mine, his, and were with him when he died. We had a little family memorial that week. Then the university had this wonderful memorial in September 2007. First there was a symposium where some of his postdocs who had gone

on to be very distinguished scientists came and spoke. His son Douglas and his daughter Gail both talked about their work. One scientist from Oxford came and spoke both there and at the memorial itself. All of the children, both sides of the family, spoke. And so did all of Dan's nine grandchildren. It was very moving. I have a DVD of it that I haven't looked at. The university showed how much they appreciated him, and it was very nice, very moving. [Spoken with emotion]

02-02:02:21

Hughes: He left a trace in many, many people's lives.

02-02:02:27

Koshland, Y.: Yes, he did.

02-02:02:32

Hughes: Including mine.

02-02:02:37

Koshland, Y.: Yes.

02-02:02:41

Hughes: It was Dan who got the oral history Program in Bioscience and Biotechnology at the Bancroft Library off the ground, with a foundational donation. He was always very supportive of the oral history program.

02-02:03:01

Koshland, Y.: Right.

02-02:03:36

Hughes: You had said in one of our many meetings that he went too soon, or words to that effect, but that you had seven wonderful years with him.

02-02:03:54

Koshland, Y.: Yes, I did.

02-02:04:02

Hughes: Well, thank you Yvonne.

02-02:04:03

Koshland, Y.: You're welcome.

[End of Interview]